

ARIZONA MEDICINE

Journal of ARIZONA MEDICAL ASSOCIATION

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ARIZONA MEDICINE

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Original ARTICLES

Thrombophlebitis of the Deep Veins of the Legs

By Charles A. L. Stephens, Jr., M.D.
Tucson, Arizona

THERE IS no more dramatic nor discouraging event in the practice of medicine than the sudden clutching of the chest, the cry of pain, the dyspnea, the cyanosis and unconsciousness, and death of the patient who suffers a pulmonary embolus originating from a thrombus in the deep veins of the leg. The surgeon who neatly and successfully performs a difficult procedure, or the internist who successfully solves a complex medical problem may suddenly find his patient dead of a complication which, as the knowledge of medical science advances, may be prevented in its entirety.

At the present time there is widespread interest in this country and abroad in the prevention and treatment of deep vein thrombosis but there is considerable confusion regarding the proper and expedient methods of diagnosis and treatment. It, therefore, would seem of value to review some of the work that has been done with the possibility that we will be able to glean from the maze of facts and figures some practical method of treating this unfortunate disease.

DEFINITION

Thrombophlebitis may be defined as "a partial or complete occlusion of a vein by a thrombus with antecedent or secondary inflammatory reaction in the wall of the vein."⁽¹⁾ Terminology has been confusing because of the interjection of the term phlebothrombosis by Ochser & DeBaakey.⁽²⁾ This may be somewhat helpful from the standpoint of pathogenesis, but clinically and pathologically this distinction is difficult to accept. If a clot develops in a

vein without previous inflammatory changes the presence of the clot itself will sufficiently irritate the vessel wall to promptly produce a phlebitis. Further, a thrombus may suddenly propagate into a non-inflamed segment of a vein from an inflamed and thrombosed segment, thus producing both thrombophlebitis and phlebothrombosis in the same vessel. Confusion is thus compounded, and I agree with Allen, Barker and Hines⁽¹⁾ and with Wright⁽³⁾ that these are best grouped as all "thrombophlebitis."

ETIOLOGY AND CLASSIFICATION

Thrombophlebitis is a disease result of many different causes and is variable in its course, prognosis and treatment. Table I is a classification given by the American Heart Association, Committee on Nomenclature of the Section for the Study of the Peripheral Circulation:

There are several factors in the development of thrombophlebitis:

- (1) Damage to the intima by chemical, traumatic or dehydrating forces;
- (2) Stasis produced by mechanical blockage such as pregnancy, circulatory failure, garters, girdles, etc., or varicosities;
- (3) Organisms of an unknown or variable type that invade the thrombus through the blood or lymph streams;
- (4) Changes in the clotting mechanisms of the blood.

In 1731 Petit was the first physician to describe the formation of thrombi in the blood vessels. Hunter in 1784 described inflammation of the wall of the vessels as a cause of thrombosis and Virchow in 1846 emphasized mechanical

factors as a cause of thrombosis. Aschoff in 1925 correlated the speed of blood flow with thrombosis and determined that the sluggish blood flow caused agglutination of the thrombocytes (viz. modern concepts of "sludging").(4) From that time to the present numerous investigators have pointed out a variety of etiologies from the "shelter foot" of the British who slept in chairs in the underground during the bombings of London in World War II to the relatively recent paradox of thrombotic thrombocytopenic purpura.

The importance of thrombophlebitis as a possible sign of malignancy was known approximately 100 years ago when Trousseau(9) first noted the association. Usually pancreatic carcinoma is responsible, though many other malignancies share this characteristic. The mechanism is unknown. Wright(10) has pointed out that this form of thrombophlebitis is often resistant to or "breaks through" anticoagulant therapy.

Cryoglobulinemia, cold agglutinins, familial thrombosing tendencies, are examples of clotting defects in the blood that may lead to thrombophlebitis.

The converse — that is, phlebitis first and thrombosis second — with no obvious origin in a male who uses tobacco should arouse the suspicion of Buerger's disease. In many cases attacks of phlebitis will precede by several months or years arterial inflammation and occlusion.

A search for an "X factor" led to some interesting but unconfirmed work by Vogelsang & Shute of Canada,(5) and Ochsner of New Orleans(6) on antithrombin — thought to be Vitamin E. The possible role of chymotrypsin released by pancreatic tumors as a thrombotic "X factor" led to, at present unsubstantiated, claims by Innerfield that these proteolytic enzymes are both thrombolytic and anti-inflammatory.(7) Plasminogen activated by a proteolytic enzyme recently has been thought to be thrombolytic but at this writing there is no method of dissolving blood clots.

In any event, thrombophlebitis appears to arise from numerous etiologic or precipitating factors — indeed a "many headed hydra".(3)

INCIDENCE

Many investigators the world over have laboriously and patiently counted and reported

the frequency of thrombophlebitis. Zilliacus(4) in scholarly fashion summarized these figures as on Table II.

One notes the "% thrombosis" fell from 1.68% before 1940 to 0.59% after 1940. The one important variable was early ambulation. However, of those who developed thrombophlebitis the incidence of fatal pulmonary emboli was increased by about one-third.

The frequency of pulmonary embolism after thrombosis following surgical operations is 50-60%. In obstetric cases the frequency is less, 15-35%.

In surgical series the mortality in cases with thrombosis is almost 20%, while in obstetric cases it is only 3-5% — a curious and unexplained difference.

Singer, in Leipzig, in 1929, pointed out that medical cases have an almost identical frequency of thrombosis and embolism as do surgical cases. Recently, writing in the J.A.M.A., Dr. Paul D. White, of Boston, U.S.A.(8) also concluded that thromboembolism is as frequent a medical as it is a surgical catastrophe.

DIAGNOSIS

The swollen, warm, edematous, painful leg, accompanied by fever, tachycardia and a palpably thrombosed vein is a clinical entity well known to all practicing physicians.

However, many victims of thrombophlebitis fail to present "calor, rubor, dolor", but rather offer subtle and often deceptive signs and symptoms.

One of the earliest signs of thrombophlebitis is an unaccountable subnormal temperature after a surgical operation or a delivery (Michaelis' sign, 1911). Mahler, 1895, observed that a tachycardia under similar circumstances is still an earlier sign of thrombosis. Other early symptoms of thrombosis are restlessness, anorexia and insomnia; an unreasonable fear of impending death should immediately suggest thrombosis.

Examination of the thrombosed extremity may reveal little. Dorsiflexion of the foot may produce a feeling of tautness in the calf of the leg (Homan's sign). Calf tenderness, both subjective and on palpation, increased consistency of the calf or of the muscles of the adductor region, incipient edema, at first generally above the ankle, later on the lower part of the leg, may be found.

Table I
DISEASES OF VEINS

Organic (Structural)

- A. Obstructive
1. Thrombophlebitis and venous thrombosis (phlebothrombosis)
 - a) Primary
 - (1) Thromboangiitis obliterans
 - (2) Recurrent or migrating (without arterial lesions)
 - (3) Essential
 - b) Secondary to
 - (1) Mechanical injury (contusion, laceration, surgery)
 - (2) Muscular effort or strain
 - (3) Chemical injury (sclerosing agents, drugs, solutions for diagnosis)
 - (4) Inflammatory or suppurative lesions — infectious diseases
 - (a) Tuberculosis, syphilis, actinomycosis
 - (b) Other bacteria (to be specified)
 - (5) Severe ischemia
 - (6) Chronic disease of vein wall (varices, phleboscrosis)
 - (Late complications — varicose or post phlebitic ulcers)
 - (7) Blood dyscrasias (polycythemia vera, leukemia, pernicious anemia)
 - (8) Epidermophytosis (?)
 2. Neoplastic invasion of vein
 3. Venous compression — with or without thrombosis or thrombophlebitis due to
 - a) Gravid uterus
 - b) Neoplasm
 - c) Aneurysm
 - d) Scar tissue
 - e) Scalene syndrome
 - f) Fractures and dislocations
 - g) Increased intra-abdominal pressure (ascites, etc.)
 - h) Extrinsic pressure (tight girdles, circular garters, poorly made trusses, etc.)
- B. Nonobstructive
1. Varicose veins (aneurysm)
 - a) Primary — congenital incompetent valves
 - b) Secondary (to proximal obstructive lesions or pressure)
 - c) Secondary to phlebitic destruction of valves
 - d) Compensatory dilatation of collateral veins
 2. Arteriovenous fistula
 - a) Congenital
 - b) Traumatic
 - c) Mycotic
 - d) Secondary to local disease
 3. Aberrant position
 4. Hypoplasia
 5. Phlebectasia
 6. Periphlebitis without thrombosis
 7. Phleboscrosis (not usually obstructive)
 8. Rupture

Table II

Author	Year	Surg. Cases	Thromb. Cases	% Thromb.	% Emb.	% Fatal Emb. of Thromb.
Ranzi	01-34	47,120	595	1.26	0.72	20
Huber	25-31	12,222	126	1.0	0.56	11
Barker	27-40	158,200	1,665	0.95	0.57	20.6
Dahl	11-30	18,168	636	3.50	2.33	14.9
Averages		235,710	3,022	1.68%	1.04%	16.6%

These figures extend up to 1940. After 1940 early ambulation became accepted practice and statistical analysis reveals some important differences. See Table III.

Table III

Author	Year	Surg. Cases	Thromb. Cases	% Thromb.	% Emb.	% Fatal Emb. of Thromb.
Zilliacus	....40-45	126,524	646	0.51	0.105	20.4
Dahl	.....42-44	1,736	10	0.58	0.67	—
Eckblom	....40-44	19,000	143	0.75	0.25	21
Johanson	....33-44	45,376	246	0.54	0.7	34
Westerborn	.31-44	43,737	254	0.56	0.4	22
Averages	....	236,373	1,299	0.59%	0.425%	26.8%

Increased temperature of the skin of the involved extremity when compared to the opposite member may be noted; conversely, a reflex dystrophic coldness and sweating may be present.

Increased sensitivity to palpation along the course of the deep veins may be present and a discoloration, varying from red to blue, or bluish-white, or even marbelization (cutis marmorata) can occur.

As a further aid in making the diagnosis it may be noted that deep thrombosis is more common in the left leg. The ratio of left-sided thrombosis to right-sided thrombosis is about 3:1.(4)

SIGNS AND SYMPTOMS OF PULMONARY EMBOLISM

The sudden deaths that occur due to massive pulmonary embolism after the post-operative or post-partum patient first gets out of bed are unfortunately too well known.

The embolism comes like a flash of lightning. The patient suddenly becomes pale, cyanotic, extremely dyspneic; chest pain, usually on the right side, unconsciousness and death follow in rapid order. At post mortem a clot filling the entire trunk of the pulmonary artery is found. Death is almost instantaneous in these cases.

The symptoms of a pulmonary embolism are almost wholly dependent upon the size of the embolus. With a more modest embolus the patient's symptoms are less severe. Temperature, hemoptysis, tachycardia, hypotension, "pleurisy" usually follow the non-fatal insult. In the mildest cases the patient may only complain of a "stitch in the side." A slight increase in the pulse rate, a low grade fever, and bloody sputum may be the only manifestations of a pulmonary embolism.

Roentgenographic studies may show a wedge-shaped shadow of increased density spreading outward from the hilum; a pleural reaction with thickening and even pleural effusion are sometimes found.

The electrocardiogram may reveal the picture of "right heart strain;" the magnitude of the variations dependent upon the size of the infarct. A deep S₁, a tall R_s, S-T elevations, especially over the right ventricles in the precordial leads, are often noted.

The white count is usually elevated to from 12,000 to 20,000 and there is an accompanying polymorphonuclear leucocytosis with the appearance of immature forms. The erythrocyte sedimentation rate is usually normal initially but rises appreciably within 72 hours.

DIFFERENTIAL DIAGNOSIS OF THROMBOPHLEBITIS

Traumatic myositis of the heads of the gastrocnemius muscle may present symptoms and signs at first suggestive of thrombophlebitis. On careful examination, however, one can usually localize the tenderness and induration to the gastrocnemius head and the absence of the "associated signs" of edema, heat, etc., will usually confirm the diagnosis. Homan's sign, will, however, usually be positive.

Cellulitis of the leg may offer a differential diagnostic problem; usually on palpation, however, one notes diffuse tenderness rather than tenderness confined to the anatomical course of the deep veins.

Panniculitis "fat legs" (lipedema), and "chronic foot strain" must be considered in the differential diagnosis. Palpation will reveal the tenderness is "spotty" and follows no venous anatomical patterns and lumpy fatty tissue is easily identified. These conditions are usually bilateral.

TREATMENT

The objectives of successful treatment are:

- (1) Prevention of deep vein thrombosis.
- (2) Prevention of the propagation of an already existing thrombus.
- (3) Prevention of the delivery of emboli.
- (4) Encouragement of the dissolution of the original thrombus.
- (5) Aids to an embarrassed venous return with its sequelae of edema, varicosities, ulcers, etc. i.e. the post-phlebitic syndrome.

PREVENTION OF THROMBOPHLEBITIS

We have seen previously that the incidence of thrombophlebitis fell by greater than 50% in 1940. This dramatic decrease in the frequency of thrombophlebitis is due solely to early ambulation(19) instituted at that time by surgeons all over the world. Unfortunately their medical brethren have not followed suit. Most medical patients are confined to bed for an unnecessary length of time and their incidence of "thrombosed patients" remains at the pre-1940 level.(4)

Besides early ambulation, the use of pedals, frequent turning in bed, and elastic wrappings have all contributed to the lessened frequency of the disease.

Garters, girdles, lounging chairs with hard fronts to the seats produce stasis in the veins by pressure over vulnerable points; their avoidance will help prevent thrombophlebitis.

Dessicated thyroid extract has been recommended as a means of "speeding up" the circulation in the extremities and by reducing stasis thrombophlebitis is thought to be prevented.(11)

Prophylactic anticoagulant therapy has been used successfully in surgical patients to prevent thrombophlebitis. The day before surgery a coumarin is given orally. Its maximum effect occurs after the operation at the time it is most needed. Large numbers of surgical patients have been treated in this fashion with an almost total absence of post-operative thrombophlebitis.(12)

PREVENTION OF THE PROPAGATION OF AN ALREADY EXISTING THROMBUS

Anticoagulant therapy will prevent an existent thrombus from propagating. The "old thrombus" becomes harder — loses its friability — and becomes "stuck" to the wall of the vein by virtue

of the phlebitis its presence creates. Unless a new soft easily fractured thrombus forms the danger of pulmonary embolism passes. Pathological studies(1) have revealed that pulmonary emboli are "fresh" or new clots probably less than 24 hours of age.

The adequate administration of heparin(1)(4)(13)(14)(15)(16)(17) or dicumarol(1)(3)(10)(16)(17)(18) will usually prevent venous thrombosis or extension of an already existing thrombus. Allen Barker & Hines, of the Mayo Clinic, state, "In our experience in more than 1000 cases, dicumarol has been effective in preventing thrombosis in veins, extension of existing thrombosis and pulmonary embolism."(1)

In the author's experience with over 200 patients with thrombophlebitis treated with anticoagulants, none had either extension of the thrombus nor a pulmonary embolus. Of 16 patients with thrombophlebitis who had already suffered a non-fatal pulmonary embolus, no patient had another pulmonary embolus nor extension of the original thrombophlebitis.(17)

METHODS

The desired immediate anticoagulant effect is achieved by the intravenous administration of Heparin Sodium; the initial dose is 50 mgm. given slowly intravenously. In three hours a Lee White coagulation time is done, and on the fourth hour heparin is again administered intravenously. The dosage schedule, followed around the clock, is as follows:

Lee White Coag. Time	Heparin
Less than 20 min.	75 mgm.
20-30 min.	50 mgm.
30-45 min.	25 mgm.
Above 45 min.	0 mgm.

The difference in patient response is not determined by a "heparin tolerance test". Heparin in Pitkin's menstruum, or other forms of repository heparin, with or without a vasoconstrictor, are not recommended. The evidence of Barker and his associates and others(16) indicates that absorption of these preparations is too variable to insure either an effective or safe therapeutic level. There are no well controlled studies reported to date indicating the value or safety of intramuscular heparin in a retarding menstruum.

The thermo-lability of heparin and the vari-

able patient tolerances necessitates the continued use of the Lee White test. It has been found that different batches or lot numbers of heparin vary in their effect on the same patient, possibly because of exposure to high temperatures in transit — an important factor in the Southwest.

It has been helpful to both patient and technician to insert a child's spinal needle or a polyethylene tube in a mid-forearm vein to facilitate the administration of heparin and the withdrawal of blood for coagulation tests.

A number of "coumarin" drugs are available — each supposedly with its special advantage, shorter action, more constant absorption, etc. The author has had the widest experience with Dicumarol® (2-4d bis-hydroxy-coumarin).

An initial dose of 300 mgm. of Dicumarol is given by mouth concurrently with the first dose of heparin and 24 hours later a 200 mgm. dose is administered. Lesser amounts are used in patients in whom caution is felt to be necessary (see Table V). The prothrombin time is determined daily by the Link-Shapiro modification of the Quick method(20) and the value desired is two to two and one-half times the control. Experience has confirmed the necessity of drawing blood for the prothrombin time just prior to the next due dose of heparin, for heparin will influence the prothrombin time.(16)(21) Heparin is discontinued when the prothrombin time reaches an adequate therapeutic level and the patient is then maintained on dicumarol.

Anticoagulant therapy is usually continued for one week, during which time the original thrombus becomes well fixed to the wall of the vein and no new thrombus forms. Therapy is not abruptly discontinued, but gradually tapered off over the following week without the necessity of prothrombin times.

Contra-indications for the use of anticoagulants are listed in Table IV and the conditions in which anticoagulants must be used with caution are listed in Table V.

LIGATION

Ligation of the deep veins of the legs is the second treatment of choice — whenever anticoagulants cannot be administered. Numerous difficulties are encountered and not entirely satisfactory results are achieved. Many patients have bilateral thrombosis and require bilateral

ligations. Thrombosis above the point of ligation is an unfortunate complication and chronic venous insufficiency of the legs with edema and stasis ulcers a frequent and unhappy sequelae. Nevertheless, when anticoagulant therapy is contraindicated or circumstances do not permit its use, ligation is a mandatory and usually effective procedure.

OTHER MEASURES

Other measures found to be helpful adjuncts are elevation of the foot of the bed on six inch "shock blocks", and the application of continuous hot wet packs. Elevating the foot of the bed aids venous return in an embarrassed extremity by employing the force of gravity. Simple elevation on pillows has been found to be unsatisfactory because invariably the pillow slips up to beneath the knee and then the foot is below the knee and the desired effect is lost. Further, keeping the leg fully extended with the foot held upon pillows will produce in a short time pain in the back of the knee by straining the hamstrings. With the foot of the bed elevated the patient can move from side to side, or even be prone, and the foot will always be higher than the knee, the knee higher than the groin, etc.

The application of continuous hot wet packs causes peripheral arterial dilatation, relieves pain, and in the author's experience, relieves any reflex peripheral arteriolar vasospasm. In over 200 cases none has required paravertebral block — a procedure recommended by Ochsner(2) and contraindicated in the presence of anticoagulants.

ANTIBIOTICS

Antibiotics are not used unless there is reason to believe the patient has a complicating infection — cellulitis or abscess or infected hematoma. It must be recalled that most antibiotics enhance slightly the anticoagulant effects of heparin and dicumarol.(16)

When the time comes to mobilize the patient, it is usually helpful to fit an elastic stocking which comes to just below the knee. Instruct the patient to avoid passive dependency, pressure behind the knee or in the groin, and to continue to sleep with the foot of the bed elevated until all evidence of dependent edema disappears.

TREATMENT OF A PULMONARY EMBOLIZATION

Once an embolus to the lung has occurred prompt treatment should be instituted. The cyanosis, right heart failure, and death are due to the occlusion of a pulmonary artery by the embolus, together with the reflex pulmonary arteriolar vasospasm throughout the lungs. Emergency treatment consists of papaverine hydrochloride, gr iii. intravenously to relax the pulmonary arteriolar vasospasm and pulmonary hypertension, heparin sodium, 50 mgm, intravenously to prevent further embolization or propagation of the embolus, and oxygen to relieve the anoxia. Digitalis may be helpful in aiding the badly strained right heart. Continuation of these measures, together with antibiotic prophylaxis is the logical sequence of events.

With this method of therapy there were no deaths in 101 patients with massive pulmonary emboli, reported by Zilliacus.(4)

Nevertheless, the best treatment of a pulmonary embolus is its prevention — no longer a nebulous wish but a reality available to all physicians who are willing to take the time and trouble to do so.

SUMMARY AND CONCLUSIONS

1. Deep vein thrombosis of the lower extremities is a serious and sometimes fatal disease of multiple etiologies.
2. Early ambulation, pedals and other preventative measures have decreased the incidence of thrombophlebitis by approximately 50%.
3. The treatment of choice consists of the use of the anticoagulants, Heparin and the coumarin drugs.
4. Prompt treatment with papaverine, heparin and oxygen will prevent death from a massive pulmonary embolus in almost all cases.
5. There is to date no effective method of dissolving blood clots.
6. The best treatment is prevention.

Table IV

CONTRAINDICATIONS FOR THE USE OF ANTICOAGULANTS

1. Duodenal or gastric ulcer
2. Gastric or colon carcinoma
3. Subacute Bacterial Endocarditis
4. Severe Hypertensive Disease

5. Cirrhosis of the liver
6. Hepatitis
7. Dissecting aneurysm of the Aorta
8. Preceding a traumatic operation, such as transurethral resection
9. Severe Vitamin C deficiency (Scurvy)
10. Blood dyscrasias interfering with blood clotting
11. Late pregnancy

Table V

CONDITIONS REQUIRING CAUTION IN THE USE OF ANTICOAGULANTS

1. Hypoprothrombinemia
2. Acute or Chronic Passive Congestion of the Liver (Heart Failure)
3. Thrombotic thrombocytopenic purpura.
4. Non-traumatic Surgery
5. Renal insufficiency

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Treatment of Envenomization by Animals in Arizona

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ONE OF THE problems of discussing venomous animals revolves about what constitutes venom. Certainly the bite of a mosquito is venomous, the resulting inflammatory process being rather accurately definable. It is known that in certain mosquito venoms, as is true with the venoms of many other animals, that the spreading factor, hyaluronidase, is present.⁽¹⁾ In the list of animal venoms treated by this paper, I have tried in general to include only those which may cause a definite toxic state in or a condition of distress to the victim. I have excluded parasites and vectors which may transmit these parasites. I have doubtless left out a few that others think should be included, but at best these should be on the same fringe border as a few that I have included. I have minimized academic discussion involving such factors as the enzymology of envenomization as well as the merits of certain treatments but have attempted to include representative references to the literature covering these subjects.

POISONOUS SNAKES

Arizona is well endowed with rattlesnakes, with 17 species and subspecies known to occur in the state. In the lowlands of central and southern Arizona, the Western diamondback and the Mohave rattlesnakes are more common than any other snake species. Unfortunately, these two species closely resemble each other in appearance. Their venoms, however, are not at all similar, as will be pointed out later.

Bites of the several species of rear-fanged snakes which are found in the state are not usually dangerous, as the fangs are not likely to penetrate the skin, and as the venom, even if injected, is of low potency. Temporary pain and some swelling may follow such a bite, but objective evaluation of the victim will reveal no marked systemic reaction, although the patient may be emotionally quite prostrated.

(I should like to thank Miss Frances Humphrey for aid in preparation of the manuscript and my wife, Ellen Shannon, for criticism of the manuscript.)

A true coral snake, *Micruroides euryxanthus*, does occur in the southern part of the state. It may be differentiated from numerous other cross-banded harmless snakes by the presence of red, cream, and black transverse bands completely surrounding the body with the red color adjacent to the cream. The species is far from aggressive, and records of human victims are unknown. Nevertheless, the coral snake is both crepuscular and nocturnal, and its affinity for freshly watered lawns renders it potentially dangerous to barefoot children. The feeling in some quarters that the bite of this species would not be dangerous appears to me to be unjustified. The snake is in the same family (Elapidae) as the cobras and other coral snakes, and all are quite dangerous.

Rattlesnakes are essentially nocturnal, although a few species living well up in the mountains are commonly found during the day. In the lowlands of the states, rattlesnakes are diurnal during the cooler months of the spring and fall. Even in summer they are occasionally found abroad during the day in such relatively cool environments as golf courses. In the warmest weather they may be found, quiescent, under desert bushes, cactuses, or low trees.

The physician seldom has the opportunity of treating a freshly-bitten patient. Distances between towns are great in Arizona, and at the time of the bite the victim is usually so far away from help that an hour or more may have elapsed before contact with the physician is possible. If it is an extremity which received the bite, the victim will usually have applied a tourniquet. As it is frequently occlusive or nearly so, it should be promptly removed and replaced in such a manner that venous return is not impaired but lymph flow is obstructed. Venom is transported by way of the subcutaneous lymph spaces⁽²⁾ until it reaches the deep lymphatic circulation in the axilla or, in the case of a lower extremity, at the level of the knee, thigh, and groin. A rare intravenous injection of venom would likely be attended by prompt fatality,

removing the patient from the province of the physician. If the swelling does not extend the length of the extremity, the level of the edema will delineate venom progress and the tourniquet should be placed just proximal to the advancing edema. It is sometimes quite difficult to accurately evaluate how seriously the victim has been poisoned. A large snake may not necessarily inject much venom,(3) whereas a small rattlesnake may inject a great deal. Other things being equal, the gravity of the bite increases with the size of the snake. If much of the venom has reached the systematic circulation, objective criteria may be evident. The patient may be in shock with the usual symptoms of a thready, rapid pulse. The patient may be comatose and exhibit Kussmaul breathing(4) and incontinence. The shock may be due to massive envenomization, to the release of histamines by the conversion of lecithin to lysolecithin by lecithinases in the venom or, occasionally, because of anaphylaxis. Antihistamines, intravenous hydrocortisone, nor-epinephrine (Levophed®), and other customary shock-raisers may be necessary to combat the above.

Pain is usually severe, and in the absence of cerebral complications opiates should be used as needed despite undocumented criticism to the contrary.(5) Tetanus and gas gangrene antitoxins should be given at this time.

Blood typing should be done as soon as possible, as enzymatic alterations of the blood may soon make such procedures impossible. Likewise a prompt urinalysis may prove of considerable prognostic import if albuminuria and hemoglobinuria are thus revealed.(10) Leucocytosis usually occurs early with an, as yet, fairly unaltered differential.

Moribund patients, especially those bitten by diamondbacks, may hemorrhage freely from the conjunctivae, from oral and anal orifices, into viscera or intestinal lumina, or subcutaneously as evidenced by petechiae or ecchymoses.(4) Bleeding from the fang punctures is usually observed.

If signs of extensive hemorrhage appear early in conjunction with a history of probably severe envenomization, heparin should be considered as a potentially valuable tool.(6)(7)(8). On the surface, such treatment may appear irrational. However, the powerful coagulases(9) of dia-

mondback venom activate extensive deposition of fibrin early in the course of the envenomization, resulting in a loss of fibrin from the circulating plasma, rendering the blood quite incoagulable. Experimentally the use of heparin alone has not appeared to result in as favorable a prolongation of life as has heparin combined with intravenous antihistamines. The latter used alone are not efficacious, perhaps due to the extensive clotting preventing their proper transport. It should be pointed out that incoagulability of the blood is not due entirely to loss of fibrin by coagulases. Hemolysins *per se* are also present, one of which attacks prothrombin. The effects of the hemolysins are probably secondary to the consequent effects of loss of the circulating platelets and fibrinogen. Further experimental work upon this subject in connection with the diamondback and Mohave rattlesnakes is being conducted by the author and Miss Frances Humphrey. All this should point up the necessity for prompt blood transfusions in such severe cases.

Corticosteroids, while of undoubted value in the treatment of shock and, perhaps, swelling, are of doubtful benefit otherwise.(11)(12)(13) It is difficult to believe that corticosteroids would do much to promote healing in the wound site.

Such neurotoxins as may exist in the venom of the diamondback, *Crotalus atrox*, are not of significance to the physician attending a patient bitten by a snake of this species. The neurotoxins, on the other hand, are potent in the venom of the Mohave rattlesnake, *Crotalus s. scutulatus*, and indeed may contribute significantly to the death of the victim of the bite. Unfortunately, differentiation between the two above species is difficult, so that there is only one report of a bite by the Mohave rattlesnake in the literature.(43) The author saw a woman who had received a shallow bite from one fang of a Mohave rattlesnake. Aside from localized swelling, the only marked systemic effects were diplopia, dysphagia, and slight dysphonia.

Extreme neurotoxic involvement as may occur in bites of the coral snake or of certain species of the rattlesnake such as the Mohave, may produce respiratory as well as a general flaccid paralysis. High cholinesterase levels are known to occur in elapid venoms (coral snakes, cobras). (14)(15)(16)(17)(18)(19) Thus the use of neostigmine and atropine, as in a myasthenic crisis,

may be of value in marginal cases. Such treatment has, indeed, been tried in the case of a seasnake bite.(19) In the one reported case, the envenomization was overwhelming in nature, and no beneficial results were observed. Nevertheless in marginal poisoning such treatment may be of some value. For the same reason an electrophrenic respirator may be used for respiratory paralysis, although again it must be remembered that enzymes may be present in high enough titer to render the procedure useless.

Hyaluronidase content of rattlesnake venom is sufficient to cause rapid poison dispersal at the site of penetration of the fangs. In the case of a bitten finger or toe, the venom would almost immediately encircle the digit by saturating the subcutaneous tissue spaces.(20) Thus such a phenomenon as a "pool" of venom beneath the fang marks is fictitious as is the belief that incision into the fang marks will allow the "pools" to be removed. Proteolytic enzymes present in rattlesnake venom as well as the proteolytic action of thrombin and lysolecithin render the site of a bite highly ischemic and susceptible to gangrene. Thus incisions into the site of a bite, if such occurs on an extremity, should be rigorously avoided,(10)(15)(16) as such procedures can only compound existing ischemia and render a gangrenous issue more certain. Incisions should not be used at all in patients who have received minimal envenomization. (16)(22) When used, the extent of the incision, which should be made over the advancing area of swelling, must be tempered by the physician's clinical judgment. A few such incisions, forming a semicircle around the limb over and anterior to the swelling may be sufficient. Such incisions should be $\frac{1}{2}$ to one inch apart and linearly placed either antero-posterior or sagittal in direction. The swelling will expand them almost as efficiently as if they were cruciate. They do not need to be much more than $\frac{1}{8}$ inch deep to reach the subcutaneous spaces. Severe cases may require several rings of incisions completely encircling the limb. New rings should be about four to six inches proximal to the preceding ring.

It should be remembered that venom can be removed from incisions over the fang marks as has been demonstrated by the splendid earlier work of Jackson,(21) but it should also

be remembered that this removal is made possible by the free mobility of the venom due to Duran Reynal's spreading factor and not due to mythical "pools" of venom. The same spreading factor, of course, facilitates removal from less dangerously placed incisions behind the damming tourniquet. Bites on the face or body may effectively be treated only by systemic measures, as tourniquets are impractical.

Excision of venom-laden tissues has been advocated.(23)(24) Unless a fatal issue is anticipated in a victim bitten not more than an hour previously, such treatment is too mutilating to be considered and, of more significance, is probably useless.

Suction may be applied to the incisions by means of such things as suction bulbs, breast pumps, or suction machines. Alternating positive and negative pressure by a Pavex boot is an effective way to remove venom. In the case of severe envenomization, suction may be useful over the course of 24 hours.

The application of extremes of heat or cold to the site of a rattlesnake bite should be avoided. As has been mentioned, considerable local ischemia is present, and even the moderate heat of a heating pad turned on low may lead to bullous formation and skin slough that could otherwise have been avoided. The use of extreme cold such as that afforded by ice water (22)(25) is outrageous. The advocates of ice water have begged the question by bringing up such unreal comparisons as the 85° F. hypothermia used for short times in cardiac surgery as justification for lowering tissue temperature to 4-7° C. This does not obviate the fact that ice water causes much more extensive gangrene, may cause immersion extremity, and in many cases even abjectly fails to control swelling, as is claimed for it.(10)(15)(16)(25)(26) Increasing numbers of cases of patients damaged by ice water are appearing in the literature, and it has even been pointed out(25) that the patients obtaining maximum benefits as reported by the advocates of ice water responded more unfavorably than did those reported by the reviewer as receiving no treatment at all.

Elsewhere I have presented some of the difficulties attending the use of antivenin.(10)(16) Wyeth has recently developed a new antivenin which appears to be much more effective than

that developed previously.(27)(28) The data concerning the efficacy of this antivenin are weighted somewhat in favor of the antivenin, but there is no doubt that a greatly potentiated product is now available. I use antivenin only in cases of severe envenomization, and then only as a supplement to such measures as tourniquet, incision, and blood replacement. The decision to use antivenin should be made only after practice of the same rigorous discipline for skin testing as is applied to tetanus antitoxin. Vastly larger quantities of horse serum will be used than is present in the antitoxin, and severe anaphylactoid reactions are known to occur from indiscriminate use of antivenin.(16) When antivenin is used, the quantity employed should be larger if the patient is small. One ampule of reconstituted antivenin should be injected subcutaneously just in advance of the swelling. Several puncture sites may be used to surround the extremity with the antivenin, but this is probably unnecessary, as the hyaluronidase in the venom would probably cause rapid dispersion. If a serious bite is being treated, it may be well to inject two or more ampules intramuscularly in the usual sites. Intravenous injection should not be attempted unless it is felt that the effects of the bite would be overwhelming. Additional ampules may be given at half hour to two hour intervals for as long as it is felt that the patient is in danger.

Every case of rattlesnake poisoning should be hospitalized. Delayed complications are not unusual for as long as a 72-hour period. There seems little reason to believe that danger to the patient would be present after this time except for the usual secondary reasons such as a gangrenous aftermath or toxemia from excessive blood destruction. Such complications as bacterial infections should be treated with antibiotics.

Complete recovery from rattlesnake poisoning may be slow. Necrosis in the area of the bite may take as long as two months to heal completely. Severe muscle spasms in an extremity which was previously badly swollen may occur for as long as two or three years following the bite. Such episodes seem to be reduced by a high calcium intake. If they are severe enough to be immediately treated, calcium gluconate intravenously will give prompt relief.

An anticipated sequela to a bite from a coral

snake would be emotional instability for several months to a year following the bite.

Mortality from snakebite varies tremendously, being higher in children. Over the country as a whole, the death rate in the 1000 persons bitten annually is about 3%.(43) It is higher in the Southwest, perhaps nearly 10%. As these figures apply to both treated and untreated cases, they are both encouraging and discouraging. A person in Arizona bitten by an extremely large rattlesnake could anticipate the probability of a mortality rate as being about 50% if untreated.

GILA MONSTER

The physician rarely sees victims of Gila monster bites. Gila monsters are found in the southern and western portions of the state except in the Gila River drainage below 1000 feet. They are not commonly encountered. When cornered they put on a rather formidable display of hissing with wide-open mouth, which discourages most people from handling them. The venom is manufactured, or at least stored,(30) in submandibular salivary glands, and it is released into the mouth where it may be carried by strongly grooved lower teeth into the flesh of the victim. The bite is extremely painful(29) and is followed by rapid swelling and advancing edema in a manner similar to that produced by rattlesnake venom. Due to an unfortunate tendency of the lizard to hang on and chew with his powerful jaws, the area of the bite is likely to be considerably lacerated. Hemolysins present in the venom may result in localized bleeding persisting for many hours or longer.(29) Powerful neurotoxins present in the venom(29)(31)(32) may produce flaccid paralysis with fatal extension to the respiratory center. In the human victim, tinnitus and dysphagia as well as emotional instability are known to result from the bite. From experimental evidence(32) there is little doubt that the venom of the Gila monster is rather potent. However, with a comparatively inefficient mechanism for injecting the venom, it would be difficult for these animals to fatally poison a man. In spite of a great mass of lurid literature to the contrary, there is no substantiated case of a human death due to a Gila monster bite. Nevertheless, envenomization should be treated by the physician as a serious matter, and the patient should be hospitalized for observation. The use

of a tourniquet may be employed to slow absorption of the venom into the blood stream and to allow it to be detoxified, presumably by the liver. Supportive treatment should be maintained as necessary in the manner described under snakebite. No antivenin has been developed, nor need be expected to be developed, for treatment of poisoning by this lizard.

TOAD

An interesting form of envenomization occasionally found in other animals, usually in dogs but obviously not much of a problem to humans may occur from ingesting the heavy, milky secretions given off by the parotid glands of the Colorado River toad, (neither analogous nor homologous to the human parotid) *Bufo alvarius*, after it is roughly handled. These large, olive green toads are found in moist environments in the southern part of the state. The most active principle in the venom, alvarobufotoxin,(44)(47) is digitalis-like in its action, and poisoning may cause emesis, partial paralysis, and death in cardiac systole. Treatment is non-definitive and poor. *Bufo alvarius* parotid secretions do not contain epinephrine as do those of many toad species of the southern hemisphere.(45)(46)(47)

SCORPION

While fatalities from scorpion sting are not common in southern Arizona, they do occur in children at the rate of three or four a year and in their aggregate equal or exceed the fatalities from rattlesnake poisoning. Although two species of *Centruroides* have been presumed to be responsible for severe envenomization, it appears that only one species, *C. sculpturatus*, is present in the state, the other being but a melanistic color phase of *C. sculpturatus*.(33) Symptoms of poisoning are variable. They may include tonic convulsions, salivation, respiratory paralysis, pilo-erection, hypertension, vaso-constriction, mydriasis, and trismus.(34)(35) Burning pain usually accompanies the sting with an area of numbness around the puncture. Convulsions are by no means always present. Drowsiness and slurring speech may ensue. Local pain may become worse, remain the same, disappear, or occasionally be absent. The convulsions may be similar to those of strychnine poisoning in that they may be induced by touching the patient or even by loud noise. Systemic symptoms usu-

ally appear in less than an hour but may, on occasion, be delayed for several hours.

Due to the extremely superficial deposition of scorpion venom and due to a lack of proteolytic enzymes, an ice bag may be used in conjunction with a tourniquet for slowing absorption of the venom, thus reducing or obviating severe systemic reactions. Hyaluronidase is known to be contained in the venom.(36) Action on the smooth muscle has been compared to that of serotonin.(37)

A specific antivenin has been prepared for use in *C. sculpturatus* poisoning. The efficaciousness of the product is in doubt, due in part to a lack of accurate publication upon its use in man. Such information as is available has not been obtained in a manner acceptable to minimum scientific standards. Great newspaper publicity was given to the antivenin at the time when there was a lobby in Congress for the purpose of introducing a bill to allow shipment of live scorpions in the mail. The resulting blurbs on at least one occasion gave praiseworthy credit to the effectiveness of the antivenin in saving the life of a person not even poisoned by a scorpion. It still remains the province of the medical man to determine the cause for convulsions, and hyperthermia is not an indication for the use of antivenin.

This does not mean to say that the antivenin is never effective. It is hoped, however, that these remarks may stimulate more accurate observations upon the effects of treatment, bearing in mind that most of the stings would not terminate fatally whether treated or not. It should be understood that the antivenin is rated as an experimental drug, and thus for medico-legal reasons written permission should be obtained whenever possible from the victim or parents of the victim previous to its administration. (The antivenin may be obtained from the Poisonous Animals Research Lab, Arizona State College at Tempe, Arizona.) Local pain may be controlled by a 2% procaine-epinephrine solution. Opiates may be used for severe pain and convulsions. A total of 50 mg. of intravenous morphine sulfate was necessary to control the pain of one man who had been stung on the penis.(35) Demerol® should not be used, as there is some evidence that it acts synergistically with the venom. Barbiturates in hypnotic doses may occasionally be life-saving. Severe

convulsions may be controlled with pentathol anesthesia followed by instigation of oxygen by a closed system.

SPIDERS

Black widow spider bite is somewhat better known to the physician, probably due to its greater incidence. In the presence of severe abdominal or other muscular cramping following a history of spider bite, an attempt should be made to verify envenomization by locating the site of the bite. Two minute fang marks are usually present. Due to a paucity of the Chick Sale-ian edifices so common in the Southeast, bites upon the genitalia are fortunately not common in Arizona.

Ten percent calcium gluconate or lactate in a dosage of 2.5 to 20 cc. based on 20 cc./150 lbs. may be given intravenously for prompt control of abdominal cramping.(38) If the cramps are not relieved, intra-abdominal pathology should enter the diagnostic picture. It should also be remembered that occasional cases of black widow spider bites have undergone appendectomies. ACTH and cortisone have been used with reported good results.(39) although a rationale for the use of corticosteroids is not clear. An immune serum, Antivenin *Latrodectus mactans* (Wyeth), has been prepared. Two ampules should be given in the presence of severe symptomatology. The calcium gluconate may be repeated as necessary for the control of cramps. With this treatment the patient usually recovers completely in one or two days, although sporadic cramping may occur for one or two weeks after the bite. If the antivenin is used, the usual skin tests for sensitivity to horse serum should be conducted. Every patient suspected of having been bitten by a black widow should be hospitalized. Estimates of fatality due to the bite may range from 1-5%.(40) Hyaluronidase is known to be present (40) in the venom.

No other Arizona spider is dangerous to man. The bite of any of the large species of tarantulas in Arizona can be quite painful. The author was bitten on the thumb while handling a large individual. The bite was attended by considerable pain lasting for two hours. Minimal swelling was experienced, but the bitten area remained unusually sensitive to pressure for three days.

CENTIPEDE

A somewhat more severe local reaction may result from bites of large centipedes of the genus *Scolopendrus*. Local necrosis and suppuration frequently follow the bite, attended by the expected local lymphadenopathy. Systemic symptoms may consist of headache and generalized aching, nausea, and even vomiting. Treatment is symptomatic. Prolonged use of moist hot packs may minimize discomfort and subsequent necrosis. Immediate application of ammonia has been suggested(42) for prompt relief of pain. The wound may be painful for as long as a month, and healing of necrotic areas is slow.

HYMENOPTERA

The stings of bees, wasps, and velvet ants are too well known to elaborate. The sting of honey bees should be scraped out rather than pulled out, as the latter procedure may cause the attached poison reservoir to be pinched and more venom thus be squeezed into the wound. Local application of an ice bag will relieve pain to some extent. A fair per cent of people are allergic to hymenopteran stings, especially apiary workers who become sensitized to the sting of the honey bee. Most of these allergies can be treated with corticosteroids and antihistamines. A state of anaphylaxis may be reached or approached by occasional individuals who should, of course, be treated with epinephrine and the other usual supportive measures.

HEMIPTERA

Finally, a word should be said about bites of the assassin bug or cone nose, locally known as the Walpai tiger. This hemipteran belongs to the family Reduviidae, notorious in Mexico and South America for carrying Chagas disease. The Arizona species carries no known disease but injects a poison or virus which displays a characteristic symptomatology on which the existing literature carries a surprising paucity of information. The bites are usually inflicted when the patient is asleep or quiet, the insect thus being able to ingest blood without immediate disturbance. The victim usually awakes with severe pruritis or pain about the site of the bite. The bitten area becomes erythematous, indurated, and feverish. Nausea or vomiting may supervene within an hour as may

severe abdominal muscular cramps. A macular rash occasionally occurs and may cover the body within 24 hours. Induration and suppuration frequently occur at the site of the bite. The more common systemic symptoms consist of headache accompanied by generalized aching. The patient may feel generally depressed and enervated with mental depression and ennui persisting for two weeks. The rash is usually transitory. Local healing is slow with induration apparent for a week or more. Necrosis may not be resolved for three weeks or longer.

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Useful Drugs for the General Practitioner

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THE PURPOSE of this review is to describe briefly the action of some drugs which are useful to the general practitioner. Each day physicians receive many pieces of mail which proclaim new therapeutic agents. Only a few of these will be included. Many of the drugs are included as reminders they have stood the test of time and are very useful.

BARBITURATES

This is still a very important group of drugs as three hundred tons of barbiturates are used per year in the United States. An average of 15% of all suicides are the result of barbiturate poisoning. During the years, 2500 different compounds have been synthesized and about 50 marketed for clinical use. The action is one of a depressant on the cerebral spinal system. Normal sleep usually is produced. Even the electroencephalogram tends to assume a normal sleep pattern. Habituation is not frequent. Addiction does occur and is more serious than morphine. Barbiturates disperse to all tissues of the body and even pass the placental barrier into the tissues of the fetus. Destruction in the body or elimination by the body depends on the type of barbiturate used. For instance, barbital and phenobarbital are excreted mainly by the kidneys, whereas pentobarbital and secobarbital are degraded by the liver. The barbiturates remain the largest group of drugs prescribed as a sedative during the day time and as a hypnotic at night. If a patient has taken too much barbital, the general tendency has been to over-treat these patients. Usually supportive measures alone are sufficient to counteract the toxic effect. The dosage used of the various barbiturates is dependent upon the type selected.

CHLORAL HYDRATE

This too is a central nervous system depressant, producing a very normal physiological sleep. There are no after effects and no untoward effects in other tissues. It remains one of our most effective hypnotics. The capsule form is very convenient to use.

TRIDIONE

This is highly specific in the treatment of petit mal epilepsy. It is given in a daily dose of 3 to 9 capsules, each containing 0.3 gms. Inasmuch as it can produce serious toxic effects, such as blurring of vision, dermatitis and blood dyscrasias, all patients must be watched carefully, with frequent examination of blood and urine.

SALICYLATES

Salicylates lower body temperature in the presence of fever, relieve pain and act as an excellent therapeutic test in acute rheumatic fever.

Caution must be used when the pleasant-tasting forms are put in homes where there are children. Over a hundred deaths occurred last year in children who had chewed and swallowed too many tablets.

Recently many combinations of salicylates and the adrenal steroids have appeared on the market. So far experience has shown that approximately 20% of the patients will notice more benefit than they had from salicylates alone.

CODINE

Acts as an analgesic as well as a cough depressant. The continuous use as a pain reliever is highly discouraged. Salicylates are just as effective.

ARTANE AND PAGITANE

The two preparations are valuable in relieving the muscular tremors of Parkinson's Disease or in arteriosclerotic conditions. It is convenient and effective to change from one preparation to the other at times.

COLCHICINE

Colchicine is still the specific type of medication which is used to relieve the symptoms of acute gouty arthritis, although no one knows the mode of action. It is to be remembered that there is no effect on uric acid metabolism. Another interesting effect of colchicine is in the relief of pain due to the neuritis which is seen

in some patients suffering with blood diseases. Care must be exercised in the intravenous use of colchicine as thrombophlebitis occurs rather frequently and can be very painful.

AMPHETAMINE

This is a form of medication which stimulates the higher nervous centers. There is no explanation for the stimulation of the brain which occurs when it is used. The psychic effects depend on the mental state and the personality of the patient as well as the dose which is given. Its use in weight reduction is dependent upon the reaction of the brain to refuse foods. Apparently tolerance does not develop. It is also of great use in the treatment of narcolepsy and post encephalitic Parkinsonism. Wonderful in the treatment of mood disturbances, but poor in the treatment of a true psychoneurosis. Many different recent preparations are available.

BELLADONNA

This still remains one of the finest drugs used to control hyperperistalsis, to relieve pylorospasm and decrease motility of the stomach wall. There is no increase in the acidity or volume of gastric juice when belladonna is taken.

ANTI-HISTAMINES

In no other class of therapeutic agents does the physician enjoy a greater choice of preparations. It acts as a blocking drug. There are many uses for the anti-histamines, such as acute urticaria, angioneurotic edema, certain forms of dermatitis, hay fever, serum sickness, the common cold due to allergy, and even motion sickness and in some forms of dizziness. If one form of an anti-histamine is not effective in the treatment, then it is possible to select another one, as they are selective in action.

DIGITALIS

Digitalis remains the mainstay in the treatment of heart disease even today. The main property of digitalis is to increase the force of myocardial contractions. Other responses, such as slowing of the heart rate, increase in cardiac output, decrease in cardiac enlargement and reduction in venous pressure are explained on the basis of the increased force of systole. Constantly there are new preparations of the different alkaloids of digitalis which are appearing on the market. A word of caution should be

remembered always — to use one type of digitalis or its alkaloid in order to understand its uses, and then stick to it. Digitalis is excreted very slowly from the body over a period of 10 to 14 days.

RAUWOLFIA

This is an effective preparation to use in the treatment of hypertension and also as a sedative. Here too a great many new preparations of the drug are appearing on the market, and only in the past few months has the pendulum appeared to seek its normal regarding its indications and contra-indications, as they are developing rapidly.

DIAMOX

This preparation produces diuresis by depressing tubular reabsorptive transport of electrolyte. In the mercurial diuretics chloride reabsorption is affected, whereas with Diamox, it is bicarbonate. This is an excellent diuretic.

PROBENECID

Probenecid blocks kidney tubular reabsorption of uric acid. An average dose of 0.5 grams twice daily will lower the level of blood serum uric acid by 30%. It has been found to be of great value in helping the body to excrete excessive amounts of uric acid. Thus it tends to prevent uric acid tophus formation and also helps to dissolve tophi, which have already formed. When a patient has a serum level over 7.5 mg. per cent the daily use does tend to decrease the number of recurrences. It is of no value in the treatment of the acute attack. Its only action is to increase uric acid excretion.

B A L

British Anti-Lewisite has proven to be of great value in treating poisoning due to gold, mercury and arsenic. In mercurial poisoning when used very early, it is life saving. Its greatest use today is in the treatment of reactions due to gold as they occur in patients with rheumatoid arthritis who have been on a course of gold therapy. Some patients are allergic to B A L, so great caution should be used with the first few doses.

SULFONAMIDES

5400 sulfonamides have been studied since the discovery of sulfanilamide. Less than 20

of these have obtained any therapeutic importance. Sulfadiazine is the most widely used of all. Sulfonamides prevent bacterial growth and then the natural resistance forces of the body kill the remaining bacteria. There are a few reactions to the sulfonamides. These are urinary, drug fever or blood dyscrasia. The urinary symptoms are due to a deposit of some of the sulfonamides in the pelvis of the kidney and the ureters. The use of alkali plus a great deal of fluids will counteract any of these effects. However, there are some of the sulfonamides which precipitate very little in the urine. Drug fever apparently is due to sensitivity and develops in a small percentage. Any reaction which may occur in the blood will appear 2 to 3 weeks after the drug has been started. The mixtures of sulfonamides are being more widely used because the total amount of the sulfonamides can be present in the urine without precipitating out of solution than would be possible if only one drug were used. There is a tendency today to use more sulfonamide therapy than several years ago. Hemolytic streptococci and gonorrheal organisms are very sensitive to them.

It is interesting to note that sulfadiazine and penicillin are the most effective combination to combat the various coccil meningitis diseases. Streptomycin and sulfadiazine seem to act best in brucellosis. Tetracycline and sulfadiazine are most effective in treating influenza meningitis.

ANTIBIOTICS

The use of antibiotics with the discovery of penicillin, and since then many new preparations have been developed in which the activity of the spectrum overlaps that of penicillin, such as tetracycline. The uses of these drugs have been spectacular in combatting infections.

IRON

Iron has been found to be more effective when taken between meals instead of immediately after meals. Also, it should be used only for blood deficiency anemias, not as a general tonic.

VITAMIN B₁₂

The value is in pernicious anemia only.

FOLIC ACID

Useful in nutritional macrocytic anemias.

HEPARIN and DICUMEROL

The use of these two preparations has been of great value in the treatment of thrombophlebitis and in coronary thrombosis. In thrombophlebitis, the embolic phenomena has been reduced by 65%; whereas the death rate of patients with coronary thrombosis has been markedly reduced. The exact percentage is not known.

RADIOACTIVE ISOTOPES

Phosphorus-P³² has a half life of 14 days. It is interesting to note that the average penetration is 2 mm. with the maximum of 7 mm. Thus most of the action from P³² is located in the tissue which has taken up the isotope. It is of great value in the treatment of polycythemia vera.

Iodine-131 is another radioactive isotope. Its half life is 8 days. It is useful in the diagnosis and treatment of hyperthyroidism.

Gold-298 is also another isotope and its greatest use is in the treatment of metastases involving the abdominal cavity and the pleural cavities.

ACTH and ADRENAL STEROIDS

Every day our mail has several brochures describing the spectacular uses of these preparations. Patients with connective tissue diseases certainly have lived longer, while in allergies, hypersensitivity to drugs, replacement in Addison's Disease and in the inflammations of the eyes, they are of great value.

In rheumatoid arthritis, rheumatoid spondylitis and in gouty arthritis, the symptoms and signs improve temporarily but the progress of the disease is not stopped.

BUTAZOLIDIN

A new drug which is very effective in controlling pain of the muscles and joints. Daily doses of 300-400 mg. or short-term large dosages are handled well by most patients. Its use in acute peri-arthritis, calcified supra-tendonitis and acute gouty arthritis oftentimes is spectacular.

REMARKS

This is a very brief review of some drugs which are of use to the general practitioner.

REFERENCE

The Pharmacological Basis of Therapeutics, Second Edition (L. S. Goodman and A. Gilman, MacMillan Company, 1955).

THE *President's* PAGE

Recently, your state association has been invited to participate in discussions to consider a possible further extension of the socialization of medicine under the guise of extended utilization of Blue Cross and Blue Shield services. So far, only discussions have been in progress, but no definite steps have been taken to commit the medical profession to approval of such a plan.

Others who are invited by the State of Arizona Department of Public Welfare are the representatives of the Blue Cross and Blue Shield, and representatives of two larger county medical societies as well as the Arizona Hospital Association. A sketchy outline of the proposed plan was presented in a recent letter. It was suggested that an attempt would be made, apparently by the State Department of Public Welfare, to seek funds and authority from the Legislature to inaugurate a program under which certain groups of recipients of public assistance might be insured under Blue Cross, Blue Shield and receive the same benefits as those who pay for their own insurance. I believe that matching federal funds might be available for payment of such premiums.

Again, I may be "talking through my hat"; but I believe that we are retreating once more before the onslaught of nationalization or socialization of medicine. It is still the taxpayers' money that purchases medical care for these people, — whether it be through the paid services of a county physician in a county hospital, — or whether it be through a devious route of cloaking such a plan with respectability by having the recipient of such benefits present a card proving to the hospital or doctor that he is entitled to Blue Cross, Blue Shield benefits. Of course, it looks respectable because the patient is promised free choice of doctors. However, this is not the prime consideration; it is merely a bait to tempt the doctors into acceding to such a plan.

It is my opinion that office procedures and services are the greatest requirement of this segment of our society, and in-patient hospital care is not the greatest requirement. This may lead to serious abuses of Blue Cross Blue Shield type of services similar to those now experienced in England under nationalization of health, namely too frequent and unnecessary hospitalization.

Your President wishes to keep an open mind on this problem and swallow some of the bitterness he experiences when these plans are being introduced. I honestly realize that every economic segment of our population deserves good medical care — but will this plan really provide it without inviting the abuses that I have mentioned? I invite your comments and letters pointing out to me your views either for or against such a plan. They will be most helpful in guiding our deliberations on your behalf.

Thank you for your kind help.

A. I. Podolsky, M.D.

President

THE ARIZONA MEDICAL ASSOCIATION, INC.

The History of Medicine in Arizona

By Howell Randolph, M.D.

GOVERNOR BENJAMIN BAKER MOEUR, M.D.

(Conclusion)

NOW LET us hear what another nephew, Sid Moeur, has to tell us about Governor B. B. Moeur.

H.R. Whatever made Dr. Moeur decide to run for Governor, do you recall?

S.M. Doc always had an unsuspected ambition to get into politics. He thought it was time for a change and he just thought he was going to make that change. I talked to him a long, long time and tried to dissuade him from it. I told him that a country doctor didn't have a Chinaman's chance and it just wouldn't work. I pointed out that a man had to be in politics to be elected Governor and that he had never been known in politics. He had had some acquaintance with my father, who had been Land Commissioner, and the name of Moeur was pretty well known so, he just decided that he could do it and he did.

I worked very closely with Doc and he had a very peculiar method for campaigning. He'd buy a gallon of gas at every service station and drive into a station and say, "fill it up"; of course they couldn't put but a gallon in and he'd say, "I'll be —, I thought there was room for a whole five gallon." In that way he got acquainted with everybody. He also had a peculiar way of paying everything by check if it was a dollar or more so they would know the signature. And, of course, he couldn't talk.

H.R. You say he couldn't make a speech?

S.M. We used to try to train him on that and finally gave up.

H.R. How did he make his appearances, did he use the radio any?

S.M. No he just went out in that old Cadillac car he had and beat the brush. "I'm Doc Moeur and I'm running for Governor" and finally we got him so he could make one or two fairly decent talks. He would shout "Taxes can be, must be, and will be reduced." I think he went on the radio once or twice, but in those days, you know, they still had Precinct meetings. It wasn't like it is now, you could go out to King's Precinct and get a thousand people to come out.



Benjamin B. Moeur, M.D.

H.R. Now they don't turn out for that kind of thing.

S.M. It was still like that in 1932.

H.R. How much money did he spend on his campaign, did he spend very much?

S.M. Well, he spent what must have been thought of as a good deal in those days, but it wouldn't be considered much in these times.

H.R. But what groups did he have behind him, any particular group?

S.M. Not a single dog-gone one. I told him "you don't have any organizations" and he replied, "B' God, I don't need them". He just had a lot of friends who said, "if you want our vote, we'll help you".

H.R. Do you remember any stories? For instance, like the one I've heard about the time he was put up on a manure spreader for use as a speaking platform up in Wickenburg and he said "this is the first time I ever run for Democratic office on a Republican platform" — I mean that kind of story?

S.M. Yes, I did hear that he talked from the back of a manure wagon, that was after he was nominated, I think. Down here in the Primaries, he got all excited one night attacking Hunt on his patronage, demanding that a man who worked for the Highway Department vote for him (Hunt), you know, or get fired. He was out in King Precinct speaking from the edge of a car. Old Judge Niles and I were listening to him, he did pretty well until he got excited. He started telling the crowd what he would do if he were an employee and Hunt asked him to vote for him or else. Well, then he stuttered, "B' God I'd just shoot his damned old belly full of buckshot". Hunt did have a big belly, you know. Then during his second campaign one night up at Glendale he had a little trouble. A man jumped on him about having an employee of his in the first term get away with some money. He said. "Well, even Jesus Christ had trouble with his disciples".

This is the way I would approach this story — just a country doctor who absolutely was a country doctor, who decided he wanted to be Governor who went out and accomplished just that. He did it through sincerity and the fact that he had no deceit in his set-up and no political conniving, or else he was too smart to let anybody think he was guilty of any political conniving. He relied a great deal on his friends. He had delivered hundreds and hundreds of babies all over this part of the country, you know; they were all very much for Doc and a whole lot of this was enthusiasm to try something new. The people seemed to genuinely like his enthusiasm his somewhat different approach to politics. I was back in Chicago during his administration attending a number of important conferences. One night at the South Shore Country Club, they kept me on the pan about Doc Moeur for two hours. They wanted me to tell them what kind of a guy this was out there in Arizona who had made such a nice reputation and they all had had to much fun reading about.

H.R. Did he get write-ups in the national magazine?

S.M. Oh, my God! Everything from Time magazine down or up, whichever way you want to go. They knew more about him in Chicago because of his eccentricities than the people in Arizona did. They stopped him once, you know, he got a write-up in Time and he got

so mad he wanted to go shoot them all. He was going up from Roosevelt to Payson and they stopped him. They heard he was on the way and somebody built a fire along the road. It was a cold night and they took him down the river to deliver a baby, the family named the baby Benjamin Baker. They wrote it up in Time, I guess insinuatingly, so he raised hell about that.

Doc was principal speaker at a Jefferson banquet one night here, he had his tux on and was all ready to make his speech when I had to go up on the speaker's platform and explain that old Mr. Citron was dying with an obstruction and he wouldn't let them operate on him until the Governor said it was all right. Doc takes off and goes down to the hospital to see him and tells him that he is a damned old fool, B' God he should let them get busy"; so they cut him open and he is still alive today. Doc returned to the banquet and delivered his speech.

I remember one more incident you might like to have. During Doc's first administration, he was called back to Washington at the time President Roosevelt called the first Governor's Conference. Stuart Bailey tells the story about when they were in the presence of the President, along with all the other Governors; President Roosevelt reached over and grabbed Doc by the hand and said, Governor, how are you getting along?" Doc answered, "Confidentially, Mr. President, I'm having a hellava time". Roosevelt grinned and reached over and said, "confidentially, Governor, I'm having a hellava time, too".

The impression gained on meeting Governor Moeur was that of a friendly, boyish, unsophisticated man, somewhat embarrassed by the prominence of his position, but enjoying it and life. He did not have to try to keep on speaking level with the people, he was just there. When the elevator operator opened the door with her usual "going up", he replied with the entirely unnecessary, "Yes, God willin'."

When my wife called him, alarmed over a three hour disappearance of our three and four year old daughters, he said, "I'll have m' Highway Patrol out right away, honey".

Dr. Moeur's approach to government was to keep the expenditures down. He held the now seemingly forgotten belief that taxes and tax rates were in some way related to government

spending. During the beginning period of Federal pump priming and the first four years of the New Deal, State government expenditures were cut from \$13,698,301 in 1930-32 to \$8,840,888 in 1932-34. For better or for worse the legislature followed his recommendation and passed sales, luxury and income taxes to help carry the burden, a good part of the proceeds being used to retire the bonded indebtedness by \$1,000,000 during his first term of office. State property taxes were reduced by about one-third during his first two years.

In his second campaign he said: "Arizona was sick and there is no medicine which will act as a panacea for a patient so chronically ill as was this patient in 1933. I am glad to report that the patient is past the danger stage and that the remedies which have been applied give promise of effecting a complete recovery."

He believed the depression could not be overcome by raising taxes but by tightening belts and going to work at the local level to take care of hardship in our own neighborhood.

He believed that Public Health was the responsibility of the medical profession of which he was a part. In his own experience, he had practiced medicine in the interests of the Public Health, so he appointed a young man in General practice, Dr. George Truman, as Superintendent of Public Health to do the job on a half time basis with a 1935 budget of \$28,645.00. The budget for 1956 was \$1,602,485.55.

In the course of cutting State government expenditures, he caused many to lose their jobs. He failed to build a politically strong machine and some of the politicians were out of step with him. For example, the State Auditor selected two or three of his appointees to crucify by holding up their pay checks while questioning some item in their departmental budgets, giving the matter the widest publicity just before election time. The budgets were usually approved, but the political barbs stuck. The unrest and unhappiness of the depression, although easing, helped to beat him in the third term Primary. He was a conservative in a time when radicalism was in the ascendancy in the United States.

Dr. B. B. Moeur was a medical man who assumed responsibility for the public interest. He offered to serve, he was chosen and he stands in history as a credit to the Profession and to the State of Arizona.


NEWS ITEM

William Snyder, M.D. has returned to private practice in Phoenix after serving in the U. S. Air Force as Chief of Dermatology at Lackland Air Force Base in San Antonio, Texas. Dr. Snyder practiced in Phoenix prior to his residency at the Cincinnati General Hospital and the Skin and Cancer Hospital of Philadelphia. He was certified by the American Board of Dermatology and Syphilology in 1952, and is a Fellow of the American Academy of Dermatology and Syphilology.

THE STRESS OF LIFE by Hans Selye, M.D. 324 pages. (1956) McGraw-Hill. \$5.95.

Hans Selye has been acclaimed throughout the world by physicians, scientists, and psychologists for his brilliant exposition of the stress theory. In language easily understandable the man who has been called "the Einstein of medicine" explains his modern stress concept: that the reaction of our bodies to outside agents is often far more significant than the agents themselves.

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Editorial

ARIZONA MEDICINE

Journal of

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CONTRIBUTORS

The Editor sincerely solicits contributions of scientific articles for publication in ARIZONA MEDICINE. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules must be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good English, especially with regard to construction, diction, spelling, and punctuation.
2. Be guided by the general rules of medical writing as followed by the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

3. Be brief, even while being thorough and complete. Avoid unnecessary words. Try to limit the article to 1500 words.

4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.

5. Manuscripts should be typewritten, double spaced, and the original and a carbon copy submitted.

6. Articles for publication should have been read before a controversial body, e.g., a hospital staff meeting, or a county medical society meeting.

7. Exclusive Publication—Articles are accepted for publication on condition that they are contributed solely to this Journal. Ordinarily contributors will be notified within 60 days if a manuscript is accepted for publication. Every effort will be made to return unused manuscripts.

8. Illustrations—Ordinarily publication of 2 or 3 illustrations accompanying an article will be paid for by Arizona Medicine. Any number beyond this will have to be paid for by the author.

9. Reprints—Reprints must be paid for by the author at established standard rates.

The Editor is always ready, willing, and happy to help in any way possible.

(The Opinions expressed in original contributions do not necessarily express the opinion of the Editorial Board.)

PREPAREDNESS

1957, almost seven years since the onset of the Korean war and the realization that preparedness is essential. What has been done in Arizona to prepare for total war? Have serious steps been taken to prepare our people?

What is the plan to follow? Evacuation! Not shelters!

Do we have an alarm or siren systems? In Phoenix, yes. In Tucson, no.

What coordination has been established between the Civil Defense organization on a State wide basis and our State Public Health Department? None to my knowledge.

What are the plans for evacuation of our major communities or for our minor communities to receive the evacuees either from Tucson or Phoenix or from the coast should such be necessary? No established organization to date.

What steps have the smaller communities taken to receive a large number of injured in addition to the refugees? None.

What have the hospitals done to plan evacuation of their patients? Little, even though it is imperative to save life and now becomes a necessity to pass the accreditation examination.

Preparedness is a must. This is an insurance policy to be purchased. The plans are essential even though we hope that it will never be necessary to use them. These steps and preparation for all out war must be taken. We cannot allow hackneyed politics or politicians to delay them. Do not allow your inertia to delay them. Medical plans are urgently needed.

HOSPITALS LIABLE FOR EMPLOYEES ACTS

IN THE past hospitals have been able to disclaim responsibility for certain acts of their employees, particularly when these acts came under the definition of medical acts, in which case the responsibility shifted to the physician under whose direction these acts were presumably done. Since certain duties of hospital employees could also be classified as administrative acts, the burden of responsibility some-

times lay on the definition of and the distinguishing between medical acts and administrative acts of employees. To further complicate the situation there has been a distinction in many places between non-profit hospitals and other institutions, with the non-profit organizations enjoying a certain immunity from responsibilities which other institutions did not. Arizona is among the states which have abandoned this doctrine of immunity of charitable institutions to liability for the acts of their employees. This position has been strengthened by recent decision of the Court of Appeals of New York concerning an error of blood typing which had been done in one of the New York hospitals. This went through the Trial Court and the Appellate Division and finally through the Court of Appeals which ruled that although the test was a "medical act", it was performed "not by a physician or nurse but by a technician who was employed and paid by the hospital, and who was so far short of professional status or attainments that only four to six weeks' training was necessary for the job. She was no independent practitioner of a learned profession . . . but a salaried employee." The opinion written by Justice Charles S. Desmond and reported in Medical News for September 10, 1956, says further, "Not only do they (modern hospitals) furnish room and board to patients but they sell them services which are 'medical' in nature and, though furnished on physicians' orders, are performed wholly by and under the control of the hospitals' salaried staffs.

"What reason compels us to say that of all employees working in their employers' businesses (including charitable, education, religious and governmental enterprise) the only ones for whom the employers can escape liability are the employees of hospitals?"

The physician should not forget that this has no effect upon his liability for any medical acts by any employees, either his own or the hospital's done under his supervision or orders. He always has been and apparently still remains liable.

R. Lee Foster M.D.

SHOULD THIS JOURNAL BE CONTINUED?

- D**O YOU approve of the consideration of
- Medical-Economic articles?
 - A discussion of Medical-Social factors?

c. Presentation of medical-legal problems?

Are you willing to contribute articles to this publication and particularly will you submit interesting case reports?

What features of our present issues do you feel should be altered, discontinued, or encouraged?

What are your suggestions for improvement?

Please submit your comments to the Editor — now.

BOOK REVIEW

THE PHILOSOPHY OF MEDICINE by Dr. William R. Laird is an interesting presentation of that side of medicine so rarely discussed. Unfortunately, at times it suffers from a lack of continuity and even seems to become devious. However, it scans that important aspect of the practice medicine that is too frequently ignored or passed over, both in medical school and in clinical practice. It is recommended reading for all students and practitioners of medicine.

PRE AND POSTOPERATIVE CARE IN THE PEDIATRIC SURGICAL PATIENT edited by William B. Kiesewetter, M.D. 347 pages. (1956) Year Book. \$7.

Although small, this volume contains advice from 16 contributing authorities, discussing the basic care given at the Children's Hospital, Pittsburgh. To facilitate reference an outline form is used and the contents are well indexed and cross indexed.

Stacey's Medical Books, San Francisco

LESIONS OF THE CERVICAL INTERVERTEBRAL DISC by R. Glen Spurling, M.D. 133 pages. Illustrated. (1956) Thomas. \$4.75.

A pioneer of the problems associated with degenerative disc syndromes gives us a fine monograph. The personal philosophy.

Stacey's Medical Books, San Francisco

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MAIL ORDERS FILLED

TOPICS OF *Current Medical* INTEREST

RX., DX., AND DRS.

By Guillermo Osler, M.D.

ANOTHER new word has popped up in articles on the medical management of disasters. Sorting of the injured is called 'triage,' and it is said to be a prime necessity when large numbers of people are hurt. . . . Lt. Col. H. H. Ziperman of the AUS Medical Corps urges that the best-trained surgeon available do the job. He must decide questions of treatment, transportation, return to duty, etc. He must decide which cases are hopeless and can only be given medical comfort during the height of emergency. This is a hard chore for physicians who have been trained to keep everyone alive, even in hopeless extremis, and the public would probably think it cruel.

Another Medical Corps officer (USAF), Lt. Col. Frank Perri, feels sure that **BELL'S PALSY** may be handled successfully and with great dispatch. He uses Thiamine and other vitamins by mouth, and daily IV use of **HISTAMINE DIPHOSPHATE** (2.75 mg. in 150 cc. of saline, at the rate of 30-40 drops or less per minute). This is not a new method for nerve tissue lesions, and had its vogue in multiple sclerosis. . . . He also uses galvanic stimulation and mirror-controlled exercises of the face muscles.

It is reported from the Navy and Marine Corps statistics for 1951 to 1955 that there has been a 59% decline in admissions to the sick-list due to **antibiotic-reactions**. Penicillin was the cause of 97% of all reactions. The drop in reaction rates parallels the drop in issue-rates of injectable penicillin.

Far be it for this column to start an intramural argument, but we'd like to say a few words for '**CHLORPROMAZINE**' (which **DOES** work), recently condemned in this journal because it is a **PHENOTHIAZINE** (which, years ago, **DIDN'T** work). . . . Actually many drugs have been invented, derived, or synthesized; found to be of scanty use for certain conditions; and been put back on the shelf, only to be hauled down or rediscovered for another trial. . . . It is a far cry from the old anthelmintic to the new anti-tension, anti-nausea usage. It is probable that we haven't found the best drug yet, but we must have a better reason for condemning a drug than that it was described a long time ago.

To further prove that we read **ARIZONA MEDICINE**, we'd like to say a word in favor of compulsion. Another member of the Board doesn't like the rule which requires a member of a state

medical society to belong to the A.M.A. He hails a New York referendum which voted against it. . . . We don't like compulsion, but we like "free-riders" even less. Physicians in New York, or elsewhere, who want to see medicine organized and strong, and who want to partake of its benefits and protection, should be willing to pay for it. There is some element of compulsion in orderly family existence, in all forms of government, and in almost every phase of life. If the use of these powers is benign (as it seems to be), it would seem to be up to the individual to support the 'system.' A county medical society membership is not compulsory, but what happens if you don't join? What happens if you don't pay your taxes? I'd rather conform, and be glad they'll have me; then I can "voluntarily" try to get into the College of Physicians.

Have you noticed the absence of the Pfizer Co. '**SPECTRUM**' from the J.A.M.A.? We have missed it, since it was quotable as well as readable. It is a definite loss, because one really felt that he had to read it.

Dr. Norman Vincent Peal is a "doctor," but of Divinity. He is also a physician, in the broad sense of the word, since he does a great deal to heal the weary and heavy laden. . . . He describes a European doctor's term for those people with tension, high blood pressure, and psychosomatic disorders, — "**the manager's disease**." They find it in executives, or anyone with a managerial responsibility. People can even be called managers of themselves; when they fail to do so they are subject to manager's disease. . . . The treatment which Dr. Peale suggests is, naturally, religion. It is not a bad therapy for anyone to suggest.

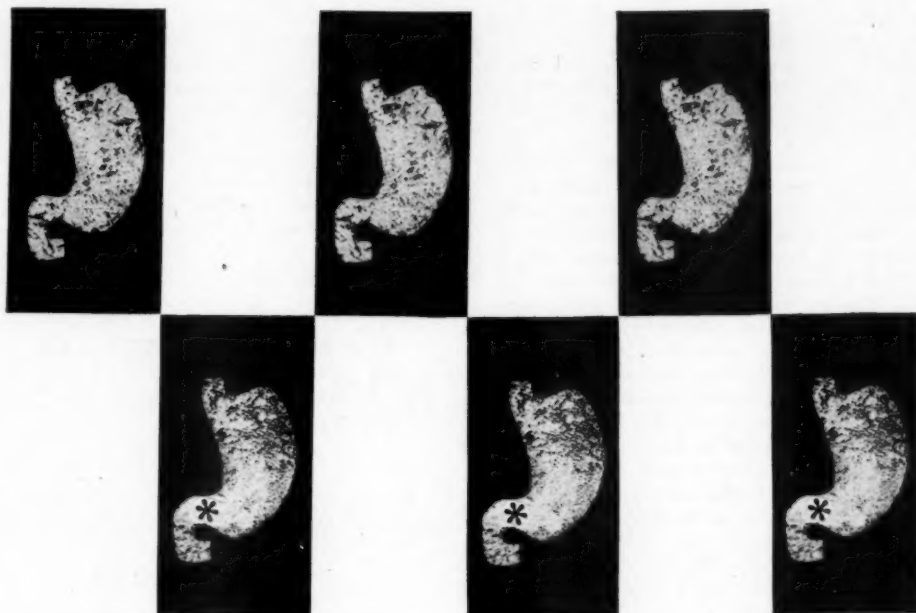
The search for new 'tranquillizing' drugs continues to proceed, but a new name for their effect is of some interest. . . . The Ames Co. calls its drug a "**CALMATIVE**," with the trade name of '**Nostyn**.'

The Eaton Labr. receive a plug from H. F. Flip-pin for their preparation '**Furadantin**.' It is a synthetic material; is not likely to meet resistance; and is useful for respiratory and urinary tract infections.

Lakeside Labr. has put out a drug for such colon disorders as include pain, cramps, bloating and diarrhea. It is an anti-cholinergic called '**Cantil**.'

All of these drugs, and a thousand others, will have to bear the test of time and comparison with similar drugs.

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SEARLE

Ventricular fibrillation occurs during surgery of the heart in a serious percentage of cases. The most common way to defibrillate has been the use of an electric stimulation. The chief disadvantage has been the burn which an arc produces in the tissue and in the heart. This can cause death or recurrences of the fibrillation. . . . It is now reported by Swan and Dortz of the University of Colorado that if an electrolyte-saturated pad is placed between the metal electrode and the heart, the contact is more perfect, no arc forms, and (in dogs) the damage and mortality are sharply reduced.

MIGRANE has been better treated than usual by a routine of J. G. Oatman of Pittsburgh. He says that the diagnosis of migraine headache is established when typical periodic hemicrania is associated with visual symptoms and nausea or vomiting. Certain personality types are more commonly afflicted with migranes than others. They include intellectual workers of the obsessive-compulsive makeup, having perfectionistic tendencies. Treatment is directed against vasodilation in the cerebral and cranial vascular bed, believed to be the cause of migraine headache. . . . Twenty-three out of a series of 24 patients with migraine headache responded to treatment with either ergot preparations or methylisooctenylamine. . . . The incidence of relief obtained from methylisooctenylamine or the ergot preparations was comparable. This relief was long-continued and complete in some very difficult cases. . . . In patients suffering from frequent attacks and attacks over a long period of time, methylisooctenylamine may be preferred because it is not cumulative in its constrictive action on the peripheral vessels and therefore does not involve the danger of gangrene.

A therapy for **TUBERCULOUS LYMPHADENITIS** has been suggested by Marquezy, et al., of the Trousseau Hospital in Paris. If they only had 2 or 3 apiece it would be a fair-sized series, since he has five co-authors. . . . They use chemotherapy, which is not very effective in the glands, but also inject 10 mg. of hydrocortisone into each gland 2 or 3 times a week. The size of the gland, and the volume of aspirate before each injection, decrease in a few days, they say, and the lesions are 'cured' in 1 to 2 months. . . . This will not be easy to confirm, since "you don't hardly see these cases no more."

A Spanish group injects steroids intrathecally in cases of late or neglected **TB meningitis**. . . . Another French group uses **ACTH** or **cortisone** in **TB** with serious prognosis, especially when complicated by empyema, acute inflammatory disease, or disease with violent reactions to chemotherapy. They go cautiously, however.

The biographies of Princess Marie Louise of Britain, who passed away recently at the age of 84 yrs., mention that she was the first princess

to smoke in public, to fly in a plane, to live in an apartment, and to be a member of a women's club. . . . These notes are very interesting, but we would like to suggest a medical, and perhaps more laudable, set of accomplishments for a **MODERN PRINCESS**. — She was the second person to take 'supercillin' for an infection; she let another sicker child use the first dose. She worked regularly twice a week for the Red Cross. She helped found a women's auxiliary for the County Hospital. She had a baby by the "natural method," and actually nursed it. She came out strongly for better hospitalization but for private medical care. She refused to deal with the representatives of any communist country. (Then, if she smoked, had a drink, or cussed, it would be nobody's business.)

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THE BODY POLITIC

By Governor Howard Pyle

(Formerly Governor of Arizona)

Administrative Assistant to the President,

Whitehouse, Washington, D. C.

THE COMPLEXITY of government in these times is comparable to that of the human body, with which you are so familiar, that it seems appropriate to title my participation here this afternoon, "The Body Politic."

Broadly, of course, government is considered to be the executive, the legislative, and the judiciary. This is correct as far as it goes, but it no more tells the whole story than to say that the human body is bone, muscle and nerves. By the same token that the number of specialists among you identifies the extent to which the human body and its problems are not just bone, muscle and nerves, so does the expanded make-up of government today overwhelm the popular concepts of the body politic as the executive, the legislative, and the judiciary, only.

To these three standard dimensions must automatically be added a third known as individual rights as they relate to the person, his property, his freedom, his security, his right to justice and so on and on and on. So the body politic grows until every time you turn on a faucet in your house, politics is involved. History, from its beginning until now, is **past** politics, and politics is **present** history. Finally, out of the immensity of it all, there emerge certain forms and patterns. Perhaps a little background here would be helpful.

For 7,000 years, tyranny, conquest, militarism, lawlessness, mob-mindedness, riot, persecution, oppression, and rebellion were the words that described the panorama of unsuccessful efforts and experimental failures that characterized the rise of government and what we have since come to know as the body politic. Along the way there were rays of light and hope appearing in Greece, Rome, Holland, Switzerland, England, and elsewhere. Still, no government was devised that could secure for its people any one of the great fundamental privileges so desired for the general welfare. Think of it, for 7,000 years, no government secured for its people religious freedom, civil liberty, freedom

of speech, freedom of the press, or security of individual rights, popular education, or universal franchise! This is rather startling, perhaps; but it is absolutely indisputable.

Then came the founding of the Republic of the United States of America, and, within a century, we had secured most of the fundamental privileges for which government is permanently organized. Basically, this has been the most nearly perfect experiment in people's government in the entire history of human beings. Today, we are its custodians, intelligently or otherwise, and challenging indeed are the decisions which we are being called on to condone or to condemn in our day and time.

The body politic, the Republic, U.S.A. 1956, is in our hands, and, believe me, gentlemen, the longer I work in the halls of government, the more I realize the great jeopardy in which many of our basic institutions find themselves as we move on from day to day.

I don't need to outline this to you. You have all been keenly interested in a very special way, both professionally and otherwise, in the proposals of recent years. In the areas in which you are particularly concerned, I wish I had time to expand on the trends in medical research as such, medical research in teaching facilities, health personnel, meeting the cost of medical care, strengthening the basic health service, sick surveys, and the expansion of medical care facilities. It is my understanding that Dr. Coggeshall, Dr. Scheele, and Secretary Folsom will be with you during the course of these next few days. Undoubtedly, they will be supplying you with a detailed account of the present situation in these areas, and therefore, with this understanding, I would like to touch on other areas that I think maybe you aren't so likely to have the time to look into.

I repeat government today is not as simple as it may look from where anyone of us may sit personally or professionally. It's bigger than big and oh so complex. There's Agriculture, Atomic Energy, the Budget, Civil Rights, Civil Service, Defense Mobilization, the Economy, Education, Federal Trade Activities, Foreign Economic Policy, Foreign Policy, the General Services Administration, Government in Business, the Health Programs of the Country, Highways, Housing, Interior, Internal Revenue, Labor, Military Pay and Benefits, Military Preparations, Military Reserves, Mutual Security,

Presented before the conference of presidents and other officers of state medical associations. Reproduced by permission of Gov. Howard Pyle.

the Post Office, Power Policy, Security, Social Security, Strengthening Career Service, Taxes, the United Nations, the USIA, and so on — I could enumerate dozens of others, but this would not add to your understanding more than to simply enlarge the picture. Therefore, I come to you today in the hope that you can be encouraged as representatives of one of the most intelligent blocks of our entire society to be more than casually interested and more than casually concerned with many of the other things that relate to your government and what you support with your taxes.

What is the role of government, the body politic? Let's reduce it to a few lines here and make it a little bit more easily understood: In cooperation with the Congress these days, we seek to discharge our responsibility by way of a series of related policies, and our particular interests fit inside the bracket of these points.

First, we have tried to remove direct controls over prices and wages, controls that had outlived their usefulness.

Secondly, in preserving an actively competitive business environment and assisting new and small businesses, we have, we believe, strengthened the health of the body politic generally.

Third, we have curtailed governmental activities that could be handled as well or better by private enterprise.

Fourth, we have restricted public expenditures and added to the country's defensive strength and its stock of public assets, especially highways, hospitals and educational facilities.

Fifth, we have lightened the burden of taxes imposed on individuals and businesses.

Sixth, we have extended the scope of our trade and investment with other nations of the free world.

Seventh, we have tempered the impact of unemployment, old age, illness, and blighted neighborhoods on people without impairing self-reliance.

Eighth, by extending the automatic working of our fiscal system we have improved the prospects for cushioning changes in income arising from changes in economic activity.

Ninth, we have attacked the fundamental causes of weakness in the farm situation.

Tenth, we have acted promptly and resolutely when either recessionary or inflationary in-

fluences in the general economy have become evident.

As reasonable and logical as these ten points of procedure are to most of us, there are decided differences of opinion on each of them. Therefore, it is a question of continuous give and take — reduced to a phrase: that which does not bend, breaks. On many of these fronts I have heard the President apply a similar line of reasoning which he draws from his vast military background. Reduced to an equally simple line, it's this: When I take a line to defend it, I take it where I know I can hold it.

Ladies and gentlemen, some of you have had experience in government affairs. You know something about the pressures that build up on philosophical points of difference. Those of you who have not had direct personal contact with it can't begin to know what these pressures are like when stimulated, as they are in many instances by the demagogue who sees in it the possibility of political favor. To retain a sense of balance, to give enough — not to break; to give enough — not to lose the point; yet not give so much as to destroy a safe and sane position — takes a tremendous amount of wisdom, understanding and patience, as well as many other attributes of nature that are not unusually found in the political arena.

In reporting these things to you, I do so because it is important that we understand each other better — you in the professions and us in government administration.

I think it would be fair to say that in no other comparable period in history have the persons of your profession been more alert to the problems that are involved in government than is the case today. I can assure you that these problems will become more and not less challenging. We need and welcome your participation in public affairs, but we urge that you not come with a largely negative point of view. Those with whom you will not agree will be arguing for things. Be prepared to do likewise or risk fatal failure. Be prepared to take the initiative with wiser and better plans. There's little percentage in continuously and forever coming from behind in areas where you know there is going to be a constant and continuing pressure as the years and the days go on.

May I illustrate?

I can understand, being of a conservative

mind, why you have been especially exercised about many of the things that have happened in Washington in recent months. Still in my own State of Arizona — and I speak of it respectfully because I love it dearly, but it is not beyond criticism — we have found it almost impossible, it seems, (perhaps I have not felt the impact of the influence of your profession) to inject into our program of state activities enough real enthusiasm for a better state health program. Many times, as I have looked at the budget of my state, I have found it extremely difficult to understand why public health has to be tenth, or eleventh, or twelfth, or thirteenth, or fourteenth down the list of appropriations. On top was always public welfare and in second place always, public roads, and so on. Far, far down the list was public health.

This is an area, ladies and gentlemen, where legislators need to be intelligently and aggressively guided by persons of your knowledge and experience. Otherwise, the demagogue moves into the situation — sees the possibility of fanning it into a real flame and does a spectacularly clever job of making a lot of people feel that only he cares what really happens to the people. Then you suddenly find yourself in trouble.

To further illustrate. . . . In state after state you will find our physical rehabilitation program crippling along under the sometimes less than enthusiastic management of totally unrelated departments. Nothing could be less realistic or more costly. Our responsibilities for physical rehabilitation should all be so directed as to take the earliest and most intelligent possible advantage of the eagerness of the disabled to be rehabilitated. Most of these people want to be able to make their own way. All they need is well informed help and encouragement to make them active, useful citizens instead of wards of our state? What have you or the Associations with which you are identified done to provide successful leadership in this direction?

I mention these things because I would like to see the profession you represent move into areas of this kind and press vigorously for the best possible results consistent with our ability to pay and our universal desire to avoid unnecessary regimentation. This I urge in contrast to the tactic of surging in from right field or from left field when the fat is in the fire and any move you make takes on the aspect of

being a move in opposition to rather than for something.

I have a wonderful brother who is a school-teacher. We have not always agreed on public school matters. For example I have always been a rabid advocate of what I call some pretty down-to-earth approaches to the public school financing problem. Yet I have found that a lot of the solutions are not easy to explain, even to a most patient and interested brother.

I remember conducting a political campaign built around a somewhat detailed explanation of how our state could approach the school financing problem without leaning on the Federal Government; without placing an unfair *ad valorem* tax burden on certain categories of property; without a lot of the hazardous concerns that had kept our people in some doubt about their future in relation to school financing. It was rather a complicated formula, but it was sound and the prouct of two years of very diligent study and earnest, honest, forthright progressive thinking. My opponent, a somewhat typical advocate of another sort came along behind me with a line you'll find very familiar — "Why, it is simple; just give them more money."

The result, the opposition was elected — the tax rate soared immediately and there is still no solid objective solution to public school financing in Arizona.

It's all called "politics". We don't like to get into it, but unless we do others will find easy ways to so complicate our lives and our way of life that we'll wonder why we ever hesitated to be active helpers along the way. Not just objectors, but helpers in the most useful sense of the word. Government is undoubtedly one of the most complicated of all the things we administer in our day and time, and the pros in the business, whose political ambitions are often tied to the things they can fan into an issue are as numerous as the leaves of the trees. Aside from our particular responsibilities in the areas where we are specialists we have the broader obligation of custodial concern for the so-called conservative point of view in government. President Eisenhower has put it into these words — "In dealing with monetary affairs, be conservative; where human beings are concerned, be liberal."

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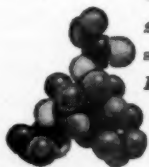
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May I make one thing crystal clear to you in conclusion?

I do not come to you as a partisan in the strictly partisan sense. We must not be intolerant of the sincerely partisan views of those who differ with us. On the other hand, we owe our children and those who have so ably brought this great country thus far our very best planning for the future. The "body politic" must grow in strength and character. In this connection it's worthwhile to take a sober look at the record of the past — the historical cycle of other peoples in other times.

The rise has been —

from bondage to spiritual faith —

from spiritual faith to courage —

from freedom to abundance —

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from abundance to selfishness —

from selfishness to apathy —

from apathy to dependency and

from dependency back to bondage once

more —

Where are we in relation to this cycle?

Remember, today the health of the "body politic" is in your hands, too. Thank you.

IT CAN'T HAPPEN HERE?

By L. D. Sprague, M.D.

"BRITISH Doctors Plan Boycott" — this recent headline excerpt from an AP dispatch in a Tucson newspaper, January 3, 1957, arouses interest and provokes thought. The average British doctor as some of you know, has an annual income of less than \$7,000 under the British national health fee schedule. Their complaint, "we are suffering from an anemia of the pocketbook". Now unless their demands for an increase in fees is met they may boycott the vast system of socialized medicine under which most Britons receive medical treatment.

One wonders what the American medical pro-

fession might do under similar circumstances. At first glance the average reaction would probably be — it can't happen here. The American medical profession has from time to time fought various schemes which embrace socialization of medicine. At a time when a large number of physicians were serving in the Armed Forces, 1943, the government made its most comprehensive bid for the socialization of medicine in the first Wagner-Murray-Dingell bills. Although federal planners had hoped to accomplish their scheme of socialization while organized medicine was in a weakened condition, physician effort rose to the occasion and the bill was defeated because of their immediate and violent opposition. This was hailed as a great victory for the forces of the free practice of medicine and for the most part physicians retreated into their isolationist shells and forgot the whole affair. One organization born of the need for representation of the medical profession exclusively on a socio-economic level, the American Association of Physicians and Surgeons had continued to battle through the years to maintain the traditional physician-patient relationship, their freedom of action and the preservation of quality medical care. They can probably be credited with a more dynamic action and dedicated fight than any other organized group in American medicine in resisting government encroachment in the field of medical practice.

Each legislative session, since the defeat of the Murray-Wagner-Dingell bill has seen numerous attempts to present and adopt into law schemes which in effect socialize medicine piecemeal. The year 1950 marked the first sweeping victory with the enactment of the Social Security Act Amendments of 1950. Physicians, for the most part, opposed the bill but did so weakly and too late for effective action. These amendments did not immediately nationalize medicine but they did draw the medical profession into the Government's magnetic field. The bill provided for Federal funds for money payments, medical care, and remedial care for needy individuals 18 years of age or older who were permanently and totally disabled. Federal planners had finally discovered the back door to socialization of medicine. Like the majority of health legislation proposals, the measure appealed to public sympathy and lured physicians with the offer of payments for disabled patients who had been

erstwhile charity cases. What physicians failed to recognize was that in accepting Federal payments they had to perforce accept Federal control. It is inevitable that "he who foots the bill has the right to call the tune" — the Supreme Court has so ruled.

In 1952, 1954 and 1955 further amendments to the Social Security Act gained for the socialist minded Federal planners further important inroads to the total socialization of the practice of medicine in the United States. The year 1956 was no exception with the enactment of the Social Security "insurance" program for cash payments to medically certified disabled persons covered by Social Security — HR 7225.

The most recent attack on American medicine for the purpose of nationalizing the profession became effective December 7, 1956. Medicare is, regardless of how one attempts to disguise its socialized medicine. As usual its provisions have mass public humanitarian appeal, physician acceptance is lured by statements that "it will not be necessary to draft physicians to care for dependents in military establishments, as heretofore", and physician's fees are at present not based on capitation but negotiated with federal agencies. Dependents of the "uniformed services" coming under the provisions of the program, some 800,000 individuals, and the physicians who serve them, participate in socialized medicine because the services are paid for by the federal government and realistically, the entire program is under control of the federal government. The final word and authority is the prerogative of government since it provides the money to finance the program. Remember also, government has nothing to give except that which it first must take from you in the form of taxes.

Let us now project the next logical step, from the federal planners' viewpoint. Who can say when they may choose to provide for the health needs of another group of citizens? Congress could presumably extend Medicare coverage now to include postal employees. How about the 2,400,000 civil service employees or the millions of people now receiving Social Security benefits? A recent AAPS "News Letter" asks this pertinent question — "Since Medicare is socialized medicine and since government controlled medical care inevitably brings about a deterioration of medical service (and we might add increased costs to the taxpayer) to the

detriment of both the patient and doctor, we are prompted to ask: When and under what provocation will we physicians debate, deny or oppose in support of the ethics and ideals of our profession, for the protection and benefit of our patients? Each of us must find the answer in his own conscience. . . . And soon, because time is running out for the continuation of qualitative medical care and for medical freedom for physicians and their patients.

Will the time soon arrive when the headline quoted at the beginning reads: "American Doctors Plan Boycott"?

Dues Paid By Active Members of County Medical Societies In Arizona 1957

By Wallace A. Reed M.D.

County Society	County Dues	AMA	State	Total
Apache	\$15.00	\$25.00	\$70.00	\$110.00
Cochise	(No reply received)			
Coconino	(No reply received)			
Gila	30.00	25.00	70.00	125.00
Graham	None	25.00	70.00	95.00
Greenlee	25.00	25.00	70.00	120.00
Maricopa*	60.00	25.00	70.00	155.00
Mohave	(No County Society)			
Navajo*	None	25.00	70.00	95.00
Pima	35.00	25.00	70.00	130.00
Pinal	15.00	25.00	70.00	110.00
Santa Cruz*	2.50	25.00	70.00	97.50
Yavapai	10.00	25.00	70.00	105.00
Yuma	10.00	25.00	70.00	105.00

*In MARICOPA County, members must pay an additional \$15.00 per year for 10 years. This is an assessment for the Library and Building Fund. If paid in advance, a reduction of \$1.00 per year is allowed.

*In NAVAJO County, funds are raised when needed by "special assessment." These usually amount to "\$15.00 q. 3-4 years."

*In SANTA CRUZ County, "Practically all of our members feel our annual dues are entirely too high and that operating expenses of the State Association are likewise too high."

State Medical Society Dues

Ala.	\$20	Kan.	\$40	Nev.	\$100	S.C.	\$20
Ariz.	60	Ky.	35	N.H.	40	S.D.	75
Ark.	25	La.	50	N.J.	30	Tenn.	25
Calif.	50	Me.	60	N.M.	70	Tex.	50
Colo.	50	Md.	30*	N.Y.	25	Utah	50
Conn.	28	Mass.	35	N.C.	40	Vt.	35
Del.	50	Mich.	45	N.D.	75	Va.	25
Fla.	40	Minn.	40	Ohio	20	Wash.	35
Ga.	25	Miss.	35	Okl.	42	W. Va.	25
Idaho	40	Mo.	25	Ore.	40	Wis.	65
Ill.	40	Mont.	54	Pa.	40	Wyo.	25
Ind.	30	Neb.	35	R.I.	50	D.C.	50
Iowa	60						

*For Baltimore members, \$50. Source: Michigan State Medical Society survey.

BRADLEY REPORT

By Elmer E. Yeoman, M.D.

IN JANUARY of 1955, there was created by the Executive Order of the President of the United States the President's Commission on Veteran's Pensions. The instruction to this group was to make a comprehensive survey and appraisal of the structure, scope and administration of veterans' compensation and pension laws and those providing related non-medical benefits. Especially, the Commission was to recommend policies which, in its judgment, would guide the granting of such benefits in the future.

Three points were to be given particular attention. 1. Basic changes in our society affecting the role of these benefits. 2. Conditions under which benefits should be provided to different categories of veterans. 3. Relationship of veterans' benefits to each other, to military benefits and to social security and other benefits granted without regard to veteran status. This Committee was a group of outstanding individuals under the chairmanship of General Omar N. Bradley. The medical interest in this report lies primarily in the development of the basic philosophy for eligibility of veterans' benefit programs. It specifically was not to investigate the medical program of the Veterans Administration.

A few brief abstracts that are of general interest are presented out of report that is in excess of 400 papers of printed material. 1. Our present structure of veterans' programs is not a system. It is an accretion of laws based largely on precedents built up over 150 years of piecemeal development. The public at large has taken little interest and the laws have been enacted in response to minority pressure. . . . There is, at present, no clear national philosophy of veterans' benefits. 2. It is pointed out that the veteran as a whole is better off economically than a non-veteran in the same age group. Veterans and their families constitute 45% of the population at the present time. It then becomes immediately apparent that the major load in supporting these veteran benefit programs is coming from the veteran himself.

As guide lines for the future the following points were made by the Commission:

a. Veterans' benefits are a means of equalizing

significant sacrifices that result directly from wartime military service.

b. Military service in time of war or peace is an obligation of citizenship and should not be considered inherently a basis for future government benefits. . . . The performance of the duties of citizenship cannot be expected to be painless or free from sacrifice.

c. The service-connected needs of ex-service-men should be accorded the highest priority among the special programs for veterans. . . . The rehabilitation of disabled veterans and their reintegration into useful economic and social life should be our primary objective. . . . Readjustment benefits to help newly discharged veterans overcome service handicaps have proved their worth when these programs have been properly devised and used. . . . Education and training and related readjustment benefits are now recognized as the best way of discharging the Government's obligation to the nondisabled. . . . Veterans have many needs which are not connected in any way with their military service. In the past veterans' pensions pioneered in the field of social welfare, but today our society has developed comprehensive means for meeting most of these needs. Long strides are being made in closing remaining gaps, and the non-service connected benefits accordingly should assume a 'reserve-line' status.

d. We should have a positive policy toward veterans' programs.

e. Our national policy toward veterans should be developed through widespread and realistic public discussion based on complete and continuing factual information about the relative economic and social status of veterans in our society.

f. Veterans with equal handicaps should have equal treatment. . . . Fair and equal treatment of all veterans, disabled and non-disabled, according to their service-connected needs, should be the guiding principle in all our programs.

g. The benefits paid to veterans with similar needs must in most programs be uniform throughout the country. Geographic or industrial variations . . . however, must be given weight.

h. Each generation must be forward-looking and willing to bear its own responsibility. . . . In veterans' programs particularly the initial cost of a program is not a good indicator of its ultimate growth or size.

i. We should keep the whole range of our

national needs in perspective. . . . It would be dangerous to over-emphasize veterans' non-service connected benefit programs at the expense of essential general programs. . . . What best serves the Nation in the long run will be in the best interest of the veterans.

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COMSTOCK CHILDREN'S HOSPITAL

COMSTOCK Children's Hospital, located at 1034 East Adams Street, Tucson, Arizona, provides hospital care for children suffering from tuberculosis and rheumatic fever, and for crippled children convalescing from orthopedic surgery or requiring long term therapy. Founded in 1920, it originally provided care for persons of all ages suffering from tuberculosis. With

the opening of the Arizona State Sanatorium at Tempe in 1936, Comstock Hospital was relieved of its adult patients, and was reorganized as a children's hospital. Since 1939 facilities have been available for the care of crippled children. Comstock Hospital is, of course, duly licensed by the State, and is also a member of the American Hospital Association. It is, in fact, the only children's hospital in Arizona.

The original buildings were erected in 1920 by way of funds raised in a campaign directed by Harold Bell Wright. In 1939, an entirely new wing was added for the care of crippled children. In 1954, a twenty-four bed wing was added, primarily for the care of infants with tuberculosis and now, in 1956, a Ford Foundation grant has made it possible to remodel the original buildings, and modernize the hospital in every particular.

Facilities are available for the care of forty-six children and during the last several years, the average daily census has been about forty.

Comstock has been used extensively for the care of children eligible for the benefits of the Tuberculosis Control Act and those being cared for by the Crippled Children's Division of the State Welfare Department. Patients of individual physicians may be admitted to Comstock Hospital, aside entirely from any public program, and any physician who is a member



Comstock Children's Hospital

*In an effort to more satisfactorily acquaint the physicians of Arizona with the medical facilities of the State, it is hoped

that periodically articles will be published to describe the auxiliary facilities.

of the Arizona Medical Association may place a child in Comstock and continue to care for it, as in any other hospital. Although the regular cost is approximately \$7.00 a day, arrangements can be made for smaller payments depending upon the financial condition of the child's family and in many cases children are admitted without payment.

Unless an admitting physician, in cases of tuberculosis, treats his patient in the hospital, the patient will be cared for by a panel of physicians headed by Dr. O. J. Farness and composed of the men actively engaged in thoracic medicine, surgery and roentgenology in Tucson. Although these men donate their services and receive no pay, every member of the panel has been active and interested, and regular in attendance at meetings and conferences. The panel serves on the wards on a rotational basis and once every two months the entire panel meets at the hospital to review every case in the institution. Other physicians may work with the panel on a consultation basis without extra charge to the patient but they need not do so. In like manner members of the Pediatrics Society donate their services to provide regular care on a rotational basis; they, too, meet periodically at the hospital. Regarding orthopedic practice, however, all the children that have been admitted to the hospital so far have been patients of admitting physicians who have continued to treat them or have been admitted by way of the Crippled Children's program, the Indian Bureau or the Public Health Service.

Comstock Children's Hospital is actually operated by Community Service, Inc., a non-profit agency which also operates Ryland Home for Men. Community Service, Inc. is one of the original members of the Tucson Community Chest and to the extent that its operations are not financed by the public programs, insurance payments and patients' charges, they are paid for by contributions and by funds raised in the annual United Campaign.

The staff at the hospital consists of a director, four registered and sixteen practical nurses along with the necessary kitchen and house-keeping personnel. A full time teacher has been assigned to Comstock Children's Hospital by the Tucson Public School System, and it has been the experience of the hospital that children who are hospitalized for many months return

to school ahead of the classes they had to leave. With the assistance of the staff and volunteer help from individuals and organizations, occupational therapy and recreational programs have been developed to assist the youngsters in maintaining happy, normal childhood activities.

The present director, Aileen M. Taylor, has been connected with the hospital for seventeen years and is fully familiar with the many problems of such an institution — medical, social, financial — and will be able to answer fully any inquiries concerning any details of any kind. She will also be happy to show any physician through the hospital at any time. The human aspect of this institution cannot be described — it must be seen: the Board of Directors invites inspection.

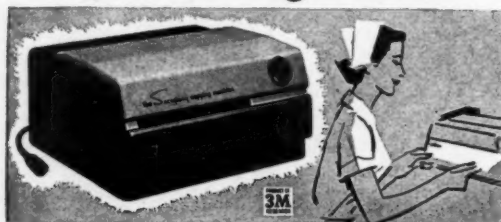
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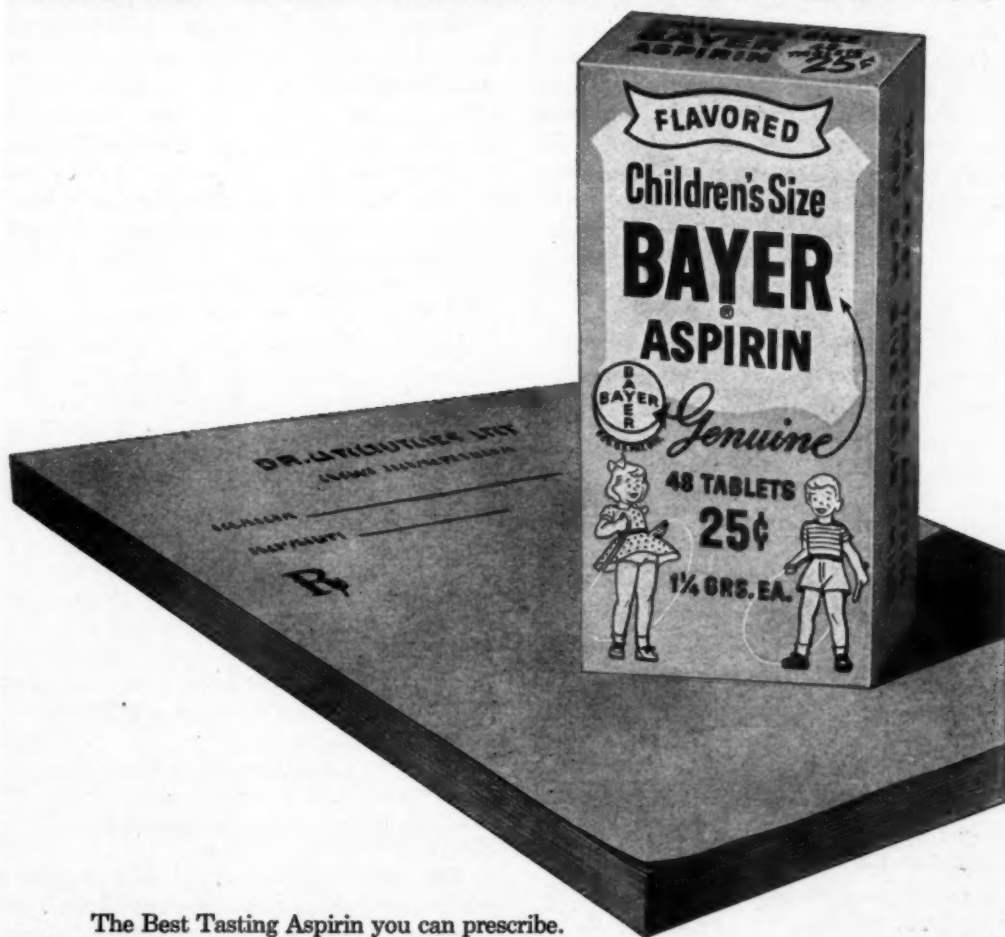
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Organization PAGE

CIVICS

By Norman A. Ross, M.D.

Dear Doctor Ross:

In a recent conversation with Dr. Robert S. Myers, Assistant Director of the American College of Surgeons, he indicated that you were interested in information regarding the establishment of a two year medical school.

I am enclosing a reprint on "Essentials of an Acceptable Medical School" which was last issued by this Council in 1951. This material is currently being revised and in its new form will represent the coordinated thinking of this Council and the Executive Council of the Association of American Medical Colleges. It has already been ratified by the two Councils and will be presented to the House of Delegates of the American Medical Association for their consideration with the recommendation for adoption in June.

Dr. Myers indicated that at the present time some of you are interested in the possibility of developing a two year school of basic medical science in Arizona.

You are aware as I am sure are your professional colleagues, that the establishment of a medical school today is an undertaking that merits considerable thought and planning. A full four year program is quite expensive but in spite of this a number of new schools are being developed. It is much more difficult to cut medicine into segments such as "preclinical" or "basic medical science" and "clinical" than it was some years ago. During the past several years there has been much more basic clinical indoctrination in the second year than there used to be, so that the sharp dividing line between these two years of basic medical sciences and the two clinical years no longer exists in most institutions.

Currently such institutions as the University of Missouri, the University of Mississippi and West Virginia University which have conducted two year basic medical science programs in the past are being converted into full four year programs. Missouri and Mississippi will graduate their first classes this next June and

West Virginia University will probably graduate its first class about 1959 or 1960.

This leaves only three schools of basic medical science or "two year medical schools" in the United States. These are the institutions in North and South Dakota and the two year program at Dartmouth. These schools have all adopted their programs so that they are able to introduce some of the clinical correlation in their currently existing two year basic medical science programs.

This Council and the Executive Council of the Association of American Medical Colleges are glad to serve in an advisory capacity in any way we can in assisting institutions considering the development of a program in medical education, regardless of whether it is a two year program in basic medical sciences or a full fledged four year program.

There is no question but that the increasing population of this country will necessitate augmented educational facilities in this important field. It is necessary that all of us do everything we can to stimulate sound developments that will make it possible for us to maintain the basic standards which we believe to be so important in modern medical education, if it is to effectively serve the public.

If we can be of further service please feel free to communicate with this office.

Very sincerely yours,
Edward L. Turner, M.D., Secretary
Council on Medical Education
and Hospitals
American Medical Association

PSYCHOSOMATIC GYNECOLOGY: Including Problems of Obstetrical Care, by W. S. Kroeger, M.D., and S. C. Freed, M.D. 503 pages. (1956) Free Press, \$8.

This text is a reprint of the 1951 (Saunders) edition. Psychologic factors in obstetrics in foetal relationship, pregnancy, labor, abortion, eclampsia, and postnatal care are discussed. Psychogenic problems of the entire gynecologic field are considered in detail. The factual approach makes this a valuable aid to all physicians.

Stacey's Medical Books, San Francisco

**REPORT ON ACTIONS OF THE HOUSE OF DELEGATES
AMERICAN MEDICAL ASSOCIATION
TENTH CLINICAL MEETING
NOV. 27-30, 1956
SEATTLE, WASHINGTON**

By George F. Lull, M.D.
Secretary-General Manager
American Medical Association

MEDICAL ethics, veterans' medical care, radioactive isotopes, continuance of the A.M.A. interim session, hospitalization for patients with alcoholism and a report of the Committee on Medical Practices were among the wide variety of subjects acted upon by the House of Delegates at the American Medical Association's Tenth Clinical Meeting held Nov. 27-30 in Seattle.

Dr. Edward M. Gans of Harlowton, Montana, was announced at the opening session Tuesday as the 1956 General Practitioner of the Year. The annual award, carrying with it a gold medal and a citation is presented to a family doctor selected by a special committee of the Board of Trustees for outstanding community service. Dr. Gans, who is 80 years old, has practiced medicine for 51 years and has been in the Harlowton area for the past 44 years.

Strongly condemning government intervention in medicine, Dr. Dwight H. Murray of Napa, Calif., A.M.A. President, told the opening session that "the medical profession, along with business and industry, is caught between those who desire to promote sound government programs and those who desire even more intensely to perpetuate party politics. Unfortunately, in recent years a benevolent federal government appears more attractive to the voting public than the preservation of individual freedoms. Medicine must do its utmost to reverse this trend."

MEDICAL ETHICS

Subject of greatest interest at Seattle was the proposed, ten-section revision of the Principles of Medical Ethics originally submitted at the June, 1956, Annual Meeting in Chicago, where final action was deferred until the Seattle session. The proposed short version of the Principles was resubmitted this week, with some changes based on suggestions received since last June by the Council on Constitution and By-Laws. The House of Delegates, however, decided to refer the matter back to the

Council on Constitution and By-Laws for further study and consideration. The reference committee report adopted by the House included the following statements:

"Careful consideration was given to the Preamble and the ten sections of the proposed Principles. The Preamble and seven of the ten sections appear to be acceptable in their present form.

"Sections 6 and 7 were not acceptable as presented either to the group which appeared at the hearing or to your reference committee.

"Out of the general discussion the reference committee received the crystallized opinion that at least four areas needed more specific attention in Sections 6 and 7. These are:

"(1) Division of fees;

"(2) The dispensing of drugs and appliances;

"(3) The corporate practice of medicine;

"(4) Greater emphasis concerning the relationship between physicians and patients.

"In addition, the reference committee felt that the wording in Section 10 could be improved if amended to read as follows:

"The responsibilities of the physician extend not only to the individual but also to society and deserve his interest and participation in activities which have as their objective the improvement of the health and welfare of the individual and the community."

"In view of the above your reference committee believes that the proposed Principles of Medical Ethics should be referred back to the Council on Constitution and By-Laws for further study and consideration of the above stated principles.

"In the short space of time at our disposal and in view of the importance of the subject, your reference committee did not deem it wise to attempt to properly phrase these concepts.

"We would also recommend that if possible this study be completed at least six weeks prior to the June session and that the new version be published in THE JOURNAL in order that all interested physicians might have

an opportunity to comment thereon."

VETERANS' MEDICAL CARE

The House revised A.M.A. policy on veterans' medical care by endorsing in principle the following paragraph suggested by the Council on Medical Service:

"With respect to the provision of medical care and hospitalization benefits for veterans in Veterans Administration and other federal hospitals that new legislation be enacted limiting such care to veterans with peacetime or wartime service whose disabilities or diseases are service-incurred or aggravated."

This action eliminates the temporary exceptions which were made in the June, 1953, policy regarding wartime veterans who are unable to defray the expenses of necessary hospitalization for non-service-connected cases of tuberculosis or psychiatric or neurological disorders. In making the policy change, the House approved this supplementary statement:

"We recognize the laws and administrative extensions of the law that are now in operation. We feel that under the circumstances it will be to the best interests of the public in general, and veterans in particular, if medical societies, county and state as well as national, develop committees to assist in guaranteeing VA hospital admission to service-connected cases. While the present law exists, we should help assure that veterans whose illness constitutes economic disaster will not be displaced by those suffering short-term remediable ills which, at the worst, constitute financial inconvenience."

In another action concerning veterans, the House passed two resolutions condemning as unlawful the practice of Veterans Administration hospitals which admit patients who are covered by workmen's compensation insurance or by private health insurance and which render bills for the cost of their care. Both resolutions requested the A.M.A. to take action to bring about a discontinuance of such practices by VA hospitals, and one of them instructed the Association Secretary to obtain from each state testimony or records of each known case that violates VA Reg. 6047-DI.

RADIOACTIVE ISOTOPES

The House rescinded the June, 1951, action, which limited the hospital use of radium and radioactive isotopes to board-certified radiologists, by approving a new policy statement

which says:

"(1) In any hospital in which a patient is to receive radium or the products of radium or artificially produced isotopes, there should be a duly appointed Committee on Radium and Artificially Produced Radioisotopes of the hospital professional staff. This committee should include but not necessarily be limited to, the following qualified physicians: a radiologist, a surgeon, an internist, a gynecologist, a urologist and a pathologist. This committee should have available such competent consultation of other physicians and scientific personnel as may be required by it. Where this is not practicable, the hospital staff should consult the nearest Committee on Radium and Artificially Produced Radioisotopes.

"(2) In any hospital, the use of radium or its products and artificially produced radioactive isotopes for diagnostic or therapeutic purposes shall be restricted to qualified physicians so judged by the Committee on Radium and Artificially Produced Radioisotopes of the professional staff to be adequately trained and competent in their particular use.

"(3) It is recommended that procurement, storage, dosimetry control and inventory of all radioactive isotopes for the use of the hospital staff and radiological safety control be centralized, and, where administratively possible, centralization be located in the Department of Radiology.

"(4) It is recommended that the Board of Trustees assign to the appropriate council or committee the continuous study of the problems of radiological safety control in the use of radium and its products and artificially produced radioactive isotopes for diagnostic or therapeutic purposes."

CLINICAL MEETINGS

Rejecting a resolution which recommended discontinuance of the interim sessions or clinical meetings, the House adopted a reference committee report which said:

"We believe that the interim sessions should be continued because of the public relations value of these meetings to the Association and the educational value to physicians and the general public in the various geographical areas involved.

"It is the suggestion of the reference committee that maximum attention be given to

these potential benefits in selecting a city for the interim meeting.

"It is our further recommendation that the Board of Trustees consider the advisability of holding an Interim Meeting of the House of Delegates in Chicago each November or December and an Interim Scientific Session in November or December of each year in different parts of the United States. The reference committee suggests that the views of the Board of Trustees in this regard be reported to the House of Delegates next June."

HOSPITALIZATION FOR ALCOHOLICS

To implement educational approaches to the problem of alcoholism, the House approved a statement submitted through the Board of Trustees by the Council on Mental Health and its Committee on Alcoholism. The House also recommended that the statement be brought to the attention of the Council on Medical Education and Hospitals, the Joint Commission on Accreditation of Hospitals and the American Hospital Association. It includes the following:

"The Council on Mental Health urges hospital administrators and the staffs of hospitals to look upon alcoholism as a medical problem and to admit patients who are alcoholics to their hospitals for treatment, such admission to be made after due examination, investigation and consideration of the individual patient. Chronic alcoholism should not be considered as an illness which bars admission to a hospital, but rather as qualification for admission when the patient requests such admission and is cooperative, and the attending physician's opinion and that of hospital personnel should be considered. The chronic alcoholic in an acute phase can be, and often is, a medical emergency."

COMMITTEE ON MEDICAL PRACTICES

In approving a progress report of the Committee on Medical Practices, the House amended one of its directives to read as follows in order to remove any legal objections:

"The A.M.A. representatives on the Joint Commission on Accreditation of Hospitals be instructed to stimulate action by that body leading to the warning, provisional accreditation, or removal of accreditation of community or general hospitals which exclude or arbitrarily restrict hospital privileges for generalists as a class regardless of their individual professional competence where such policies adversely affect

the quality of patient care rendered. Any action taken should be only after appeal to the Commission by the county medical society concerned."

The House also approved a recommendation by the Committee on Medical Practices that a study group be formed to consider the best background preparations for general practice, and it urged that such action be implemented as soon as practicable.

MISCELLANEOUS ACTIONS

Among many other actions on a wide variety of subjects, the House of Delegates also:

Urged the widest possible publication and distribution of Dr. Murray's **PRESIDENTIAL ADDRESS** at the opening session;

Pledged the full support of the Association's initiative and energy to President Eisenhower's **PEOPLE-TO-PEOPLE PROGRAM** as a means of promoting understanding, peace and progress;

Directed the Board of Trustees to continue its investigation of the practicability of developing a **STATEMENT OF A.M.A. POLICIES** and to arrange for the periodic publication of revisions of such a policy statement;

Commended the objectives of the American Association of **MEDICAL ASSISTANTS** and its sincere desire to work closely with the medical profession in improving medical service and medical public relations;

Noted with pride the good work being done by the 74,348 members of the **WOMEN'S AUXILIARY**, as reported to the House by Mrs. Robert Flanders, President;

Directed the Councils on Pharmacy and Chemistry and on Foods and Nutrition to conduct a joint study of all presently available information concerning the **FLUORIDATION OF PUBLIC WATER SUPPLIES** and to present a documented report of findings and recommendations at the December, 1957, meeting;

Urged all physicians to participate actively in the formulation of medical policy for **PREPAID MEDICAL CARE PLANS** which are under physician direction or sponsorship;

Changed the By-laws to extend **SERVICE MEMBERSHIP** to reserve officers on extended active duty with the defense forces and the **OF MEMBERSHIP** so that an active or as U. S. Public Health Service;

Changed the By-laws relating to **TRANSFER** sociate member of the Association who moves

his practice to another jurisdiction may continue his A.M.A. membership by applying for membership in the constituent association in his new jurisdiction, subject to a two-year limit on approval of his application;

Changed the By-laws so that the election of officers may take place at any time on the fourth day of the annual session, instead of being restricted to the afternoon of that day;

Passed a resolution calling for the American Medical Association to join with the American Hospital Association and the American Institute of Architects in their proposed STUDY OF HOSPITAL DESIGN AND CONSTRUCTION;

Approved the principle of a voluntary reduction in the self-assigned QUOTA OF INTERNS as printed in the 1956 handbook of the National Intern Matching Program, and

Instructed the Board of Trustees to accentuate cooperation between the American Medical Association and the American Bar Association to the end that a bill of the JENKINS-KEOGH type be enacted at the next session of Congress.

OPENING SESSION

At the Tuesday opening session Dr. Murray, on behalf of the American Medical Association, presented a special citation to Ciba Pharmaceutical Products, Inc., for "the service it has performed to the medical profession and to the nation through its weekly television series, 'Medical Horizons'." At the same session the American Medical Association and four of its constituent societies — California, Arizona, Utah and New Jersey — contributed nearly \$300,000 to the American Medical Education Foundation for aid to the nation's medical schools. The A.M.A. announced another gift of \$125,000, bringing this year's total contribution to \$343,000. The amounts presented by the four states were: California, \$132,981; New Jersey, \$25,000; Utah, \$11,870, and Arizona, \$3,695.

COUNCIL MEETING

By Walter T. Hileman, M.D.

COUNCIL of the Arizona Medical Association at its meeting of November 18, 1956 at Tucson, deliberated between 11:00 a.m. and 4:40 p.m. on the following, and other matters:

1. A preliminary report was made on a new bill to be proposed to the legislature regarding mental commitment procedures.

2. A contribution to the AMEF in the amount

of \$5.00 per active member as of January 1, 1956 passed.

3. The Washington negotiations on Medicare were reported in detail. Council commended the Committee and directed that letters of appreciation be sent to Mr. Bud Jacobs, the association's attorney and Mr. Joseph Stetler, the attorney for the American Medical Association for their activities and great help in negotiating this contract.

4. It was reported that Blue Shield has contacted with Stanford Research for a survey of operation and future policies of Blue Shield in Arizona.

5. The Industrial Relations Committee chairman, Dr. Beaton, reported on plans for improving the practice in consultations and planned revision of the I.C.A. fee schedule, the latter following the lines of the California Relative Values Schedule.

6. The report of recent survey in regards to a State Medical School and availability of instructors was submitted. There are 180 members who have taught in Medical Schools and 306 members replied that they were interested in teaching, should a Medical School be established in the state.

7. The Public Relations board reported the desirability of the state association participating, when desired, in labor-management problems in setting up health insurance programs.

8. The Coconino County Society invited the Association to hold its 1958 convention in Flagstaff. This was referred to the House of Delegates for action at the annual meeting.

9. Planned efforts for nomination of Dr. Hamer for vice president of the American Medical Association were carried forward.

After other routine matters had been handled, Council adjourned.

LETTERS TO THE EDITOR

January 24, 1957

Editor, Arizona Medicine
720 North Country Club Road
Tucson, Arizona
Dear Sir:

IN ARIZONA Medicine for December, 1956, a guest editorial appeared entitled "Phenothiazine" by Robert J. Antos M.D. In that editorial several factual errors and misconceptions occur. In dis-

curring phenothiazine (thiodiphenylamine) Dr. Antos states that no mention of this drug can be found, as in the sentence "In the latest G. and C. nothing." I assume that this is a reference to the superb text of Drs. Goodman and Gilman, "The Pharmacological Basis of Therapeutics." If Dr. Antos is sufficiently familiar with these authors to refer to them in a scientific publication by initials only, one would think that this familiarity would extend to their actual work. On page 1148 of the second edition of this book will be found a succinct and authoritative discussion of phenothiazine.

The editorial's thesis seems to be that structural alterations in a parent compound will result in a drug that is just as toxic as the original. It is well known that in many instances the slightest change in the molecular structure of a compound will result in a totally different drug. For example: the simple substitution of an allyl radical for a methyl radical in the highly complex molecular structure of morphine results in a drug that is a true pharmacologic antagonist of morphine. Salicylic acid is quite unsatisfactory for systemic use, yet by acetylation a compound is produced which is a most useful and widely exhibited drug. Numerous other examples could be cited.

The modification of the phenothiazine nucleus by the addition of side chains of varying degrees of complexity produces drugs having no significant relationship to the properties of phenothiazine. Admittedly, promethazine, promazine and chlorpromazine may have undesirable side reactions. Many of these are simply an extension of the pharmacologic actions of the drugs when given in prolonged or high dosage, or to susceptible individuals. The more serious evidences of toxicity during long term therapy may be detected by periodic clinical and laboratory observations which should be well known to those prescribing these drugs.

The chief toxic effect of phenothiazine is directly on mature erythrocytes to the point of producing hemolytic anemia. This is not true of its derivatives under discussion. That they are capable of causing true toxicity is not denied. This is true of any drug with a satisfactory index of therapeutic activity. To condemn them as highly dangerous drugs on the basis of their structural formulas is unwarranted.

Very truly yours,

C. Clark Leydic, Jr., M.D.

WHY BLUE SHIELD MUST KEEP ON GROWING

By Robert Barfoot, M.D.

EVER SINCE the birth of the "Blues," the big news has been their astounding rate of growth. Blue Cross and Blue Shield have "hit the jackpot" in public acceptance, the former now well past the 50 million mark, and the latter expected to reach 40 million by the end of 1957.

Occasionally one hears the suggestion that Blue Shield attempt to "stabilize" its enrollment, and relax its efforts to cover an ever larger cross section of the population. But the demand for prepaid medical care is now almost universal; and those who have it are asking for broader coverage and better contracts.

Not only does Blue Shield's momentum of growth permit no turning back, but it has grown so big that the public interest in Blue Shield has made it a major item in America's program for social progress. The continued growth of Blue Shield is essential to the best interests of both medicine and the public.

Why essential?

First, because Blue Shield is a major factor in medicine's economy. Whereas installment buying creates a debt and mortgages the future, medical prepayment creates a credit for the patient, and protects his future.

Again, Blue Shield's growth safeguards its actuarial base of operations. As risks are spread ever more widely, the community and the doctor gain a surer protection against fluctuations affecting the subscription rates or payments to physicians.

A third benefit of Blue Shield growth is the opportunity to reduce operating costs per person enrolled. This helps the plan to broaden its services or to raise its payments to doctors — or both.

Fourthly, the greater the number of his patients covered by prepayment, the fewer for whom the doctor has a collection problem, and the lighter his load of free or part-pay work.

Medicine's most significant benefit from the growth of Blue Shield is the dominant influence of the medically guided Blue Shield Plans on the shape and destiny of the voluntary health insurance movement as a whole. Were it not for Blue Shield, the medical profession would have no effective control over the basic economy of private practice.

Blue Shield is big because it has a big job to do for the doctor and his patient. But the size of Blue Shield is only a reflection of the vision and boldness that the American doctor has brought to bear on this job.

INSECTICIDES ARE HARMLESS WHEN USED CORRECTLY

By J. N. Roney
Extension Entomologist
University of Arizona
Agricultural Extension Service

DURING the spring, summer and fall we read or hear something almost daily about how insecticides, especially the new ones are poisoning our foods and livestock, as well as people. Yes, we consider all insecticides poisonous to man as well as warm blooded animals. We know though that if these insecticides we now use are applied according to directions no problems will develop.

Before the use of DDT, Benzene Hexachloride (BHC), Chlordane, Toxaphene, Malathion, Aldrin, Dieldrin and other organic insecticide we were using Arsenicals, Fluorines, Nicotines and Cyanides with very few complaints. We know that Arsenicals and Fluorines were used on our fruits, apples, peaches, plums, pears and apricots. We also know that apples had to be washed with a weak acid before eating to prevent being poisoned by Arsenicals or Fluorines. We also know that Arsenicals and Fluorine could not be applied to vegetables 30 days prior to harvest. We used them but seldom had any trouble. Cyanide, a very deadly insecticide has been used for years for fumigation purposes. We followed directions at all times and never got into any trouble. Nicotines are very poisonous and people have used them for years, but they always follow directions. Aspirin can be deadly.

With the introduction in 1945 of these new insecticides like DDT, BHC and so forth we found that we could get very excellent controls of insects at very economical costs. In fact since these materials have been used for control of cotton insects, we have raised the Arizona Cotton Yields from 500 pounds (1 bale) to over 1100 pounds or over two bales per acre. These are the highest yields anywhere in the world.

With the building of suburban homes near agricultural crops we have had many com-

plaints of the insecticides injuring people and livestock. We never recommend an insecticide until the research workers have tested these materials. We have never had anyone killed by insecticides drifting from a field into a home. Sometimes some of these materials smell bad or inconvenience one but there is not enough material present in the insecticide drift that would kill one. Some people are allergic to road dusts and thus could be annoyed by an insecticide. We recommend the use of insecticides for control of insects that would otherwise destroy the crops. Research has shown that the materials will not harm anyone if directions are followed.

Insecticides have helped us produce the best quality of vegetables and fruit you can find anywhere. The cotton yields mentioned above are also examples of what the insecticides are doing for us.

The research people are constantly developing new insecticides for us to use. Under the Pure Food Laws none of the new materials will be used until they have been tested for injury to people, livestock, beneficial insects and other plants. We need these new insecticides since many of the insects are developing resistance to the present recommended insecticides.

Yes, insecticides are harmless if directions are followed. The drift of insecticides generally speaking may annoy us but are not very poisonous.

NEW BOOKLET ON ECONOMIC POISONS AVAILABLE

SINCE there have been some deaths from parathion poisoning in recent months in this state every doctor should be interested in a booklet which has been prepared by the Technical Development Laboratories of the Communicable Disease Center in Savannah, Georgia — a division of the Public Health Service under the United States Department of Health, Education, and Welfare. This booklet entitled "Clinical Memoranda on Economic Poisons" has been reproduced as a public service by the National Agricultural Chemicals Association and may be obtained by request to this organization whose address is Associations Building, 1145 Nineteenth Street, N. W., Washington 6,

D. C. The publication deals with most of the industrial compounds which are poisonous under certain conditions and which are used in insecticides and crop dusting as well as in other industrial applications. Included are some of the more recent insecticides such as the parathion and even the more prosaic materials such as kerosene. For each of these chemicals the booklet gives authoritative information on the uses, the routes of absorption, physiological action, dangerous dosages for man, signs and symptoms of poisoning in man, and laboratory findings, treatment, and in other words the most complete authoritative recent information of which I know. Special directions are given for the various laboratory procedures in studying cases of poisoning, treatment information is given and this booklet should be a very welcome addition to every physician's library.

ARIZONA MEDICAL ASSOCIATION LOCATION OPPORTUNITIES

ASHFORK — Pop. 700 — North centrally located — Railroad center — Contact Mr. J. J. Slamon, Justice of Peace, Ashfork, Arizona.

CAMP VERDE — Located in the heart of a large farming and ranching area on the Verde River — Approximately 100 miles north of Phoenix. Badly in need of a medical doctor. Contact Ivy N. Moser, R. N., Camp Verde, Arizona.

BENSON — Excellent opportunity for GP — This David-Benson trade area has about 5000 population with only one doctor available. Contact Mrs. Thomas Allen, Secretary, Benson Business Association, Benson, Arizona.

DAVIS-MONTHAN AIR FORCE BASE — Located on outskirts of Tucson — In need of a General Medical and Surgical officer part time, \$7,465.00 per year. Application should be made to the Civilian Personnel Office at Davis-Monthan.

DOUGLAS — Pop. 10,000 — On the Mexican border in the southeast section of Arizona — Opportunity for associate practice in OALR. Contact James S. Walsh, M.D., 631 9th Street, Douglas, Arizona.

FLAGSTAFF — Pop. 7,500 — Largest city in the north central Arizona trading area — Navajo Ordnance Depot is in the process of recruiting for a medical officer. Navajo Ordnance Depot, Flagstaff, Arizona.

FLAGSTAFF — Excellent opportunity for a pediatrician and for a radiologist. Please contact Morris M. Zack, M.D., 411 Birch Street, Flagstaff, for further information.

GILA BEND — Pop. 2,500 — 80 miles west of Phoenix — Good opportunity for general practitioner. Cattle, cotton and general farming. Office and equipment available. \$150 monthly income from Board of Supervisors. Contact Mrs. J. F. Allison, Box 126, Gila Bend, Arizona.

LAS CRUCES, NEW MEXICO — In South Central part of State and not too distant from El Paso, Texas. Population is approximately 22,000, boasts State College and White Sands proving grounds. General Hospitals, 85 beds, fully accredited and staffed by fourteen (14) doctors. Needs Urologist and/or Obstetrician-Gynecologist. For full details write: A. M. Babey, M.D., President of the Staff, 250 West Court Street, Las Cruces, New Mexico.

MORENCI — Mining community located near New Mexico-Arizona border. Has vacancy at hospital for GP. Contact Carl H. Gans, M.D., Morenci Hospital, Morenci, Arizona.

SUPERIOR — Mining community located approximately 75 miles east of Phoenix. A vacancy exists at industrial hospital. General practice and surgery combination desirable. Contact Howard W. Finke, Chief Surgeon, Magma Hospital, Superior, Arizona.

TUCSON — An opening in the Outpatient Department of the Veterans Administration Hospital for a generalist or internist. State license is necessary but not necessarily an Arizona license. If interested, contact S. Netzer, M.D., Director, Professional Service, V. A. Hospital, Tucson, Arizona.

TUCSON — Opening for a board certified or board eligible Orthopedist to form and head an Orthopedic Department in the Tucson Clinic. Must have had good training in pediatric orthopedics as well as acute trauma and reconstructive work. Are looking for a younger man; however, are willing to consider any well-trained physician regardless of age. Tucson has a metropolitan population of close to 200,000 at the present time. If interested, contact D. J. Heim, M.D. The Tucson Clinic, 116 North Tucson Boulevard, Tucson, Arizona.

TUCSON — Looking for a General Practi-

tioner for plant services — \$750.00 monthly, 5 days a week. Contact Doctor Meade Clyne: 116 North Tucson Blvd., Tucson, Arizona.

YOUNGTOWN — Pop. 130 — Located 16 miles from Phoenix, 4 miles from Peoria, 1½ miles from El Mirage, 1 mile from Surprise, each a potential field of practice. Most residents are 60 years of age or older and are in need of medical care. Office space is currently provided at no rental. A medical center is being planned. Interested doctors may contact Mr. Sid Lambert, Box 61, Marionette, Arizona.

YUMA — Pop. 15,000 — Situated in the Southwest corner of the State on the Colorado River — In need of a country physician. This is an ideal set-up for a retired or semi-retired doctor. The doctor could devote all of his time to the job or have a private practice in addition. If interested, call Mr. Robert Odom, collect at SUNset 3-7843 as soon as possible.

FOR INFORMATION ON OPPORTUNITIES IN THE FIELD OF INDUSTRIAL MEDICINE, CONTACT:

Harold J. Mills, M.D., Phelps Dodge Hospital, Ajo, Arizona

Carl H. Gans, M.D., Phelps Dodge Hospital, Morenci, Arizona

Ira E. Harris, M.D., Miami Inspiration Hospital, Miami, Arizona

Charles B. Huestis, M.D., Mox 928, Hayden, Arizona

Elvie B. Jolley, M.D., Copper Queen Hospital, Bisbee, Arizona

H. W. Finke, M.D., Magma Copper Company Hospital, Superior, Arizona

John Edmonds, M.D., Kennicott Copper Corporation Hospital, Ray, Arizona

The Responsibilities of the Medical Profession In the Use of X-Rays and Other Ionizing Radiation

Statement by the United Nations Scientific Committee on the Effects of Atomic Radiation

1. **T**HE UNITED Nations General Assembly, being aware of the problems in public health that are created by the development of atomic energy, established a Scientific Committee on the Effects of Atomic Radiation. This Committee has considered that one of its most urgent tasks was to collect as much information as

possible on the amount of radiation to which man is exposed today, and on the effects of this radiation. Since it has become evident that radiation due to diagnostic radiology and to radio-therapy constitutes a substantial proportion of the total radiation received by the human race, the Committee considers it desirable to draw attention to information that has been obtained on this subject.

2. Modern medicine has contributed to the control of many diseases and has substantially prolonged the span of human life. These results have depended in part on the use of radiation in the detection, diagnosis and treatment of disease. There are, however, few examples of scientific progress that are not attended by some disadvantages, however slight. It is desirable therefore to review objectively the possible present or future consequences of increased irradiation of populations which result from these medical applications of radiation.

3. It is now accepted that the irradiation of human beings, and particularly of their germinal tissues, has certain undesirable effects. While many of the somatic effects of radiation may be reversible, germinal irradiation normally has an irreversible and therefore cumulative effect. Any irradiation of the germinal tissues, however slight, thus involves genetic damage which may be small but is nevertheless real. For somatic effects there may however be thresholds for any irreversible effects, although if so these thresholds may well be low.

4. The information so far available indicates that the human race is subjected to natural radiation,* as well as to artificial radiation due to its medical applications, to atomic industry and its effluents and to the radioactive fall-out from nuclear explosions. The Committee is aware of the potential hazards that such radiation involves, and it is collecting and examining information on these subjects.

5. The amount of radiation received by the population for medical purposes is now, in certain countries, the main source of artificial radiation and is probably about equal to that from all natural sources. Moreover, since it

*The radiation due to natural sources has been estimated to cause between 70 and 170 millirem of irradiation to the gonads per annum in most parts of certain countries in which it has been studied, although higher values are found locally in some areas. See the reports "The hazards to man of nuclear and allied radiations" published by the United Kingdom Medical Research Council in June 1956, in which also the millirem is defined; and from information submitted to the Committee.

is given on medical advice, the medical profession exercises responsibility in its use.

6. The Committee appreciates fully the importance and value of the correct medical use of radiation, both in the diagnosis of a large number of conditions, in the treatment of many such diseases as cancer, in the early mass detection of conditions such as pulmonary tuberculosis, and in the extension of medical knowledge.

7. Moreover, it appreciates fully the contribution of the radiological profession, through the International Commission on Radiological Protection** in recommending maximum permissible levels of irradiation. As regards those whose occupation exposes them to radiation, the establishment of these levels depends on the view that there are doses which, according to present knowledge, do not cause any appreciable body injury in the irradiated individual; and also on the consideration that the number of people concerned is sufficiently small for the genetic repercussions upon the population as a whole to be slight. Whenever exposure of the whole population is involved, however, it is considered prudent to limit the dose of radiation received by germinal tissue from all artificial sources to an amount of the order of that received from the natural background radiation.

8. It appears most important therefore that medical irradiations of any form should be restricted to those which are of value and importance, either in investigation or in treatment, so that the irradiation of the population may be minimized without any impairment of the efficient medical use of radiation.

9. The Committee is consequently anxious to receive information through appropriate governmental channels as to the methods and the extent by which such economy in the medical use of radiation can be achieved, both by avoiding examinations which are not clearly indicated and by decreasing the exposure to radiation during examinations, particularly if the gonads, or the foetus during pregnancy lie in the direct beam of radiation. It seeks, in particular, to obtain information as to the reduction in radiation of the population which might be achieved

by improvements in instrument design, by fuller training of personnel, by local shielding of the gonads, by choosing appropriately between radiography and fluoroscopy, and by better administrative arrangements to avoid any unnecessary repetition of identical examinations.

10. The Committee also seeks the co-operation of the medical profession to make possible an estimate of the total radiation received by the germinal tissue of the population before and during the child-bearing age. It considers it to be essential that standardized methods of measurement, of types at present available, should be widely used to obtain this information and it emphasizes the value of adequate records, maintained by those using radiation medically, by the dental profession, and by the responsible organizations in allowing such radiation exposure to be evaluated. The Committee is convinced that information of this type will make it possible to decrease the total medical irradiation of the population while preserving and increasing the true value of the medical uses of radiation.

BEGINNING AND THE END

By Robert E. Jones, M.D.

MOST DOCTORS know little, if anything, regarding the laws pertaining to births and deaths. The following synopsis has been prepared to acquaint you with the Arizona laws.

The Birth Certificate shall contain: The place of birth, the full name and sex of the child, statement of singular, or plural birth, date of birth, data concerning the father and mother. This certificate must be filed with the local registrar within ten days after the birth. Any person who knowingly inserts false information is guilty of a misdemeanor.

The death certificate shall contain: The place of death, full name and sex, the color or race, marital status, date of birth, birthplace, occupation, data concerning father and mother. The certificate should be filed within three days following death. A medical certificate must be completed and signed by a physician if one has been in attendance on the deceased. It shall specify the time in attendance, the time patient was last seen, the hour of the day on which the death occurred, the cause of death, the course of the disease, the name of the disease, contributing causes, if any, and length

**See the report of the International Commission on Radiological Protection (published in the *British Journal of Radiology* - Supp. 6, of December 1954 - in the *Journal français d'électroradiologie* - No. 10, of October 1955 - etc. and revised in 1956).

of residence at the place of death. There is required a determination of whether the death was accidental, suicidal, homicidal, or due to natural causes. False information on a death certificate is a misdemeanor.

STATEMENT OF HOXSEY CANCER TREATMENT

By Geo. P. Larrick
Commissioner of Food and Drugs

FOR THE second time, a Federal court has determined that the Hoxsey medicines for internal cancer are worthless. After a six-week trial in the Federal court at Pittsburgh, the jury returned a verdict that these medicines, in pill form, were illegally offered as an effective treatment for cancer.

The public should know, however, that this action does not end the menace of this fake treatment. It merely means that half a million of the Hoxsey pills, which were seized shortly after the opening of a second Hoxsey Clinic at Portage, Pa., will now be destroyed. An injunction is being brought to stop further interstate shipment of the pills. We intend to use every legal means within our power to protect consumers from being victimized by this worthless treatment.

In the meantime it is of the utmost importance that cancer patients and their families, who may be planning to try the Hoxsey treatment either at Dallas, Texas, or Portage, Pa., should acquaint themselves with the facts about it. All such persons are advised to secure a copy of the Public Warning which was issued by the Food and Drug Administration last April. They may do this by writing to the Food and Drug Administration, Washington 25, D. C.

Harry M. Hoxsey has continued to promote his worthless cure for more than 30 years, notwithstanding numerous local and state court actions. Proceedings under the Federal Food, Drug, and Cosmetic Act did not appear possible until a 1948 decision of the Supreme Court interpreting the word "accompanying" in the definition of labeling under the Act. An injunction suit was filed in 1950 and a decree finally issued by the Federal court at Dallas in 1953.

Over the years thousands of persons have been deceived by the false claims for the Hoxsey liquid medicines and pills. At the Pittsburgh trial there was testimony concerning per-

sons who may have died of cancer as a result of reliance on the Hoxsey treatment instead of seeking competent medical treatment in the early stages of their condition. The Government's evidence showed that alleged "cured cases" presented by defense attorneys were people who did not have cancer, or who were adequately treated before they went to the Portage Clinic, or died of cancer after they had been treated there.

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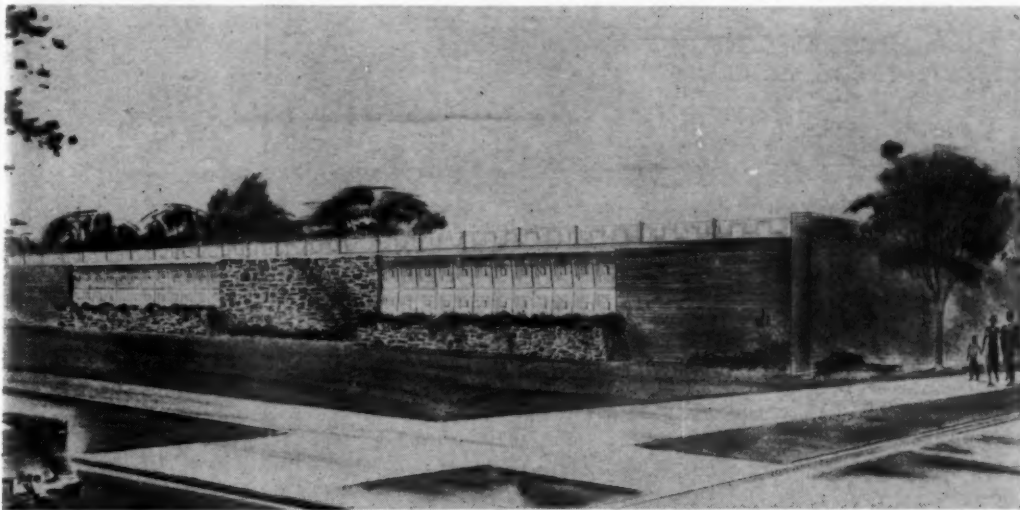
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Carlos C. Craig, M.D.

PRESIDENT ELECT ARIZONA MEDICAL ASSOCIATION INC., 1956-1957

Carlos C. Craig, M.D., was born April 5, 1905 in Charleston, Illinois. Parents, Doctor & Mrs. Robert Hanson Craig, his only sister died in 1918 of influenza.

Graduated 1922 Charleston High School, University of Illinois Pre-Medical, 1922-1924.

University of Illinois, College of Medicine, 1924-1929, and graduated with a B.S. and M.D.

He interned at Augustana Hospital 1929-1930. Externship Augustana Hospital 1927-1928. Residency St. Joseph's Hospital, Phoenix, Arizona, 1930-1932.

Practice was begun in Phoenix, on January 1932 to the present except for A.U.S. 1942-1946.

Service to the U.S. consisted of the following: Adjutant Station Hospital, Davis Monthan; C.O. Hospital Grand Island, Nebraska and Woodward, Oklahoma. Medical Inspector 2nd Air Force, Colorado Springs; Flight Surgeon 318th Fighter Group Iwo Shima. Attended the Mayo Foundation Army School, 1944; 3rd Medical Inspector's Class, Carlisle Barracks, Pa.; Flight Surgeon's School, Randolph Field, Texas. Entered U. S. Service with the rank of Captain, and was discharged with rank of Lt. Colonel.

Dr. Craig married Josephine Baptist on December 25, 1927 in Phoenix, Arizona. They have two children, Ann Fairfax Craig who married W. H. Bond, M.D. and have one child, Carlos William 14 months old. Frank Robert Craig, who married Margaret Ann Peel.

A delegate for years, Speaker of the House 1941-1942; Chairman Legislative Committee 1951; Council 1954; Vice-President Arizona Medical Association 1955; President-Elect 1956; Secretary Arizona Blue Shield from the time it was planned (1947) and officially 1948-1949; President Arizona Blue Shield 1950-1951; President Maricopa County Medical Society 1955; Member A.A.G.P.

He belongs to St. Joseph's Hospital staff also Good Samaritan, member of the Council; St. Luke's Hospital, Chairman of G. P. Section; Memorial Hospital; John C. Lincoln, Courtesy Staff.

Belongs to the Phoenix Country Club; Valley Field Riding and Polo Club, director 1956; Kiva Club; Phoenix Rotary Club.



Carlos C. Craig, M.D.

Forthcoming Meetings

SIXTY-SIXTH ANNUAL MEETING

THE
ARIZONA MEDICAL
ASSOCIATION
INC.

YUMA, ARIZONA
April 10, 11, 12, 13, 1957

STARDUST HOTEL

HEADQUARTERS - STARDUST HOTEL

Official Call

The Arizona Medical Association, Inc., takes pleasure in announcing its Sixty-Sixth Annual Meeting to be held at Yuma, April the tenth through April the thirteenth, Nineteen Hundred Fifty-seven. The Woman's Auxiliary will meet concurrently. Headquarters - Stardust Hotel.

A. I. Podolsky, M.D.
President

SCHEDULE OF MEETINGS

REGISTRATION

April 10, 11, 12, 13 each day Lobby
7:30 A.M. through day Fee \$10.00

SCIENTIFIC SESSIONS

Thursday morning, April 11 see page 180
Thursday afternoon, April 11 see page 180
Friday morning, April 12 see page 180
Saturday morning, April 13 see page 181

Note: All papers except those of guest orators limited to time of schedule.
All papers to be published in Arizona Medical Journal.

COUNCIL SESSIONS

First Meeting, April 10 see page 179
Second Meeting, subject to call

HOUSE OF DELEGATES

First Meeting, April 11 see page 179
Second Meeting, April 13 see page 181

Additional Sessions of House Subject to Call

REFERENCE COMMITTEE MEETINGS

April 11 and 12 To be announced

BLUE SHIELD

Corporate Meeting, April 10 see page 179

SPECIALTY GROUP

LUNCHEON-MEETINGS

Thursday, April 11 see page 180
Friday, April 12 see page 180

ENTERTAINMENT

Social Hour and Buffet Supper

April 10 see page 179

Social Hour, April 11 see page 180
President's Dinner Dance, April 12. see page 181
Annual Golf Tournament, April 13. see page 181

WOMAN'S AUXILIARY

Program of the Woman's Auxiliary. see page 190

PROGRAM

Wednesday, April 10

COUNCIL SESSIONS

10:00 A.M. Council Session Planet Room
1:00 P.M. Council Luncheon ... Dining Room

BLUE SHIELD

2:00 P.M. Annual Corporation Meeting
(House of Delegates) .. Planet Room
Followed by

Meeting of Board of Directors

Planet Room

Annual report of L. Donald Lau,

Director Planet Room

ENTERTAINMENT

6:30 P.M. Reception - Social Hour ... Patio

7:30 P.M. Buffet Supper

(Admission by ticket) Patio

Thursdays, April 11

HOUSE OF DELEGATES

8:00 A.M. House of Delegates -

First Session Planet Room

9:00 A.M. Visit your exhibits -

Refreshments - Coffee and Coke

GENERAL SESSION

9:30 A.M. General Session Planet Room

Call to Order

Abe I. Podolsky, President

Invocation

Reverend Charles H. Crawford

Welcome

John F. Stanley, President

Yuma County Medical Society

Response
 Donald E. Nelson, Safford
 Introduction of President
 Abe I. Podolsky, Officiating
 Presidential Address
 Carlos C. Craig, Phoenix

SCIENTIFIC SESSION

10:00 A.M. Scientific SessionPlanet Room
 Willard V. Ergenbright ..Officiating
 Panel Discussion on BACKACHE
 Albert G. Bower, Pasadena....(Medicine)
 Henry D. Brainerd, San Francisco
 (Medicine)
 Leon Goldman, San Francisco ..(Surgery)
 Raymond R. Lanier, Denver ..(Radiology)
 Joseph C. Risser, Pasadena
 (Orthopaedics)
 (Questions and answers)

12:15 P.M. Press Conference — All guest orators
 participatingPlanet Room

SPECIALTY GROUP

LUNCHEON-MEETINGS

Thursday, April 11 — 12:30 P.M.

Arizona State Society of Anesthesiologists
 Jean's Log Cabin Steak House ..2020 Third Ave.
 (Luncheon and Business Meeting)

Arizona Arthritis Association
 Loo's Restaurant2100 Fourth Ave.
 (Luncheon only)

Arizona Pediatric Society
 Stardust HotelDining Room
 Speaker: Henry D. Brainerd, San Francisco
 Subject: Management of Infectious Diseases
 of the Central Nervous System

SCIENTIFIC SESSION

2:00 P.M. Scientific SessionPlanet Room
 Paul J. SlosserOfficiating
 1. Present Status of Chemotherapy —
 Henry D. Brainerd, San Francisco
 (2:00 - 2:30 P.M.)
 2. The Threat of Strangulation in
 Acute Intestinal Obstruction —
 Leon Goldman, San Francisco
 (2:30 - 3:00 P.M.)
 3. Roentgen Diagnosis of the Com-
 monplace Arthritides — Raymond
 R. Lanier, Denver (3:00 - 3:30
 P.M.)

3:30 P.M. Visit your exhibits —
 refreshment — coffee and coke
 4. Diagnosis and Treatment of the
 Great Simulator, Infectious Mono-
 nucleosis — Albert G. Bower, Pasa-
 dena (3:45 - 4:15 P.M.)
 5. Management of Acute Anuria —
 Joseph H. Holmes, Denver (4:15 -
 4:45 P.M.)
 6. Scoliosis — Joseph C. Risser, Pasa-
 dena (4:45 - 5:15 P.M.)

5:15 P.M. Press Conference — all guest
 orators participating ...Planet Room

ENTERTAINMENT

6:00 P.M. Reception — Social HourPatio

SCIENTIFIC SESSION

Friday, April 12

9:00 A.M. Scientific SessionPlanet Room
 Walter BrazieOfficiating
 1. Diagnosis of Acute Chest Pain —
 Henry D. Brainerd, San Francisco
 (9:00 - 9:30 A.M.)
 2. Jaundice — Philip Thorek, Chicago
 (9:30 - 10:00 A.M.)
 3. Recent Advances in Surgery of the
 Gastrointestinal Tract — Leon
 Goldman, San Francisco (10:00 -
 10:30 A.M.)

10:30 A.M. Visit your exhibits —
 refreshment — coffee and coke
 4. Treatment of Mumps and Its Com-
 plications in the Adult Male —
 Albert G. Bower, Pasadena (10:45
 - 11:15 A.M.)
 5. Office Gynecology — N. Paul Is-
 bell, Denver (11:15 - 11:45 A.M.)
 6. Early Clinical Differentiation of
 Benign, Pre-Malignant and Malign-
 ant Cutaneous Neoplasms —
 Donald J. McNairy, Phoenix (11:45
 12:05 P.M.)

12:15 P.M. Press conference —
 all guest orators participating
 Planet Room

SPECIALTY GROUP

LUNCHEON-MEETINGS

Friday, April 12 — 12:30 P.M.

Arizona Chapter, American College of Chest
 Physicians

Flamingo Hotel Restaurant ..2415 Fourth Ave.
 Speaker: Henry D. Brainerd, San Francisco
 Subject: The Diagnosis and Treatment of the
 Pneumonias

Arizona Academy of General Practice
 Stardust HotelDining Room
 Arizona Chapter, Western Orthopaedic
 Association

Loo's Restaurant2100 Fourth Ave.
 Speaker: Raymond R. Lanier, Denver
 Subject: Roentgen Demonstration of Unusual
 Fractures

Arizona Chapter, American College of Surgeons
 Jean's Log Cabin Steak House .2020 Third Ave.
 Speaker: Leon Goldman, San Francisco
 Subject: Getting the Surgeon Ready for
 Surgery

Speaker: Philip Thorek, Chicago
 Subject: The Injured Common Duct,
 Prevention and Correction

SCIENTIFIC SESSION

2:00 P.M. Scientific SessionPlanet Room
 William B. SteenOfficiating
 Introduction of President of AMA by Jesse D. Hammer, Delegate

1. AMA and Its Stand on Accreditation — Dwight H. Murray, Napa (2:00 - 2:30 P.M.)
2. Only an Appendix — Philip Thorek, Chicago (2:30 - 3:00 P.M.)
3. The Diagnostic Roentgen Findings in Study of the Acute Abdomen — Raymond R. Lanier, Denver (4:15 - 4:45 P.M.)
6. The Analysis and Treatment of the Common Foot Disorders (4:45 - 5:15 P.M.)

5:15 P.M. Press conference — all guest orators participatingPlanet Room

ENTERTAINMENT

6:00 P.M. Reception — Social HourPatio
 7:45 P.M. President's Dinner Dance

Planet Room

Note: Through the courtesy and with the compliments of our own Arizona "Drug Travelers," a corsage will be presented to each of our gracious ladies in attendance. We acknowledge with grateful appreciation this gesture of esteemed friendship.

Saturday, April 13

HOUSE OF DELEGATES

8:00 A.M. House of Delegates —
 Second SessionPlanet Room
 10:00 A.M. Visit your exhibits —
 refreshment — coffee and coke

SCIENTIFIC SESSION

10:15 A.M. Scientific SessionPlanet Room
 Ashton B. TaylorOfficiating
 Panel Discussion on POST-OPERATIVE CARE

Joseph H. Holmes, Denver(Medicine)

N. Paul Isbell, Denver

(Obstetrics & Gynecology)

Philip Thorek, Chicago(Surgery)

12:15 P.M. Press conference — all guest orators participatingPlanet Room

GOLF TOURNAMENT

1:00 P.M. Annual Handicap Golf Tournament (stag)Yuma Country Club
 Paul J. Slosser, Chairman
 Robert A. Stratton
 G. Calvin Williamson

The members of the Association and particularly the golfers wish to express grateful appreciation and thanks to all those so generously contributing prizes for this event.

GUEST ORATORS

ALBERT G. BOWER

Clinical Professor of Medicine,
 University of Southern California
 School of Medicine



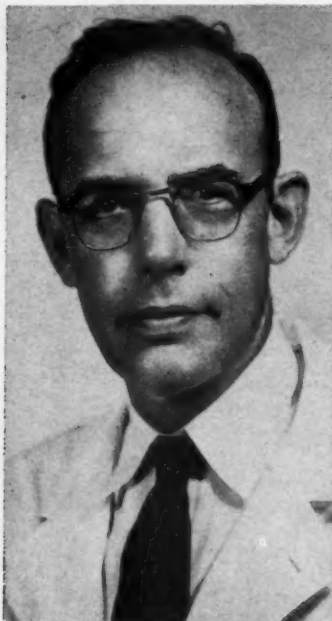
HENRY D. BRAINERD

Professor of Medicine and Chairman
 of the Department of Medicine,
 University of California
 School of Medicine

GUEST ORATORS



LEON GOLDMAN
Chairman, Department of Surgery,
University of California
School of Medicine



JOSEPH H. HOLMES
Professor and Head of Laboratory
Medicine and Clinical Pathology,
University of Colorado
School of Medicine



N. PAUL ISBELL
Association Clinical Professor of
Obstetrics and Gynecology,
University of Colorado
School of Medicine



RAYMOND R. LANIER
Professor of Radiology,
University of Colorado
School of Medicine



DONALD J. McNAIRY
Dermatologist, Phoenix



JOSEPH C. RISSE
Associate Professor of Orthopaedics,
College of Medical Evangelists

GUEST ORATORS



DWIGHT H. MURRAY
President,
American Medical Association



PHILIP THOREK
Assistant Professor of Surgery,
University of Illinois
College of Medicine



ABE I. PODOLSKY
Yuma, Arizona
President
Arizona Medical Association, Inc.



DERMONT W. MELICK
Phoenix, Arizona
Secretary
Arizona Medical Association, Inc.

1957 ANNUAL MEETING

INTRODUCING Joseph C. Risser, M.D., Professor of Orthopaedics at the College of Medical Evangelists in Los Angeles.

Doctor Risser was born in Des Moines, Iowa and received his doctor of medicine degree from the University of Iowa School of Medicine in 1923. His internship was served at the Latter Day Saints Hospital, Salt Lake City, Utah, and he served a fellowship at the New York Orthopedic Dispensary and Hospital from 1926 to 1930. From 1930 to 1932 Doctor Risser served as an instructor at Columbia University College of Physicians and Surgeons. He is currently a staff member at St. Luke Hospital, Pasadena; Orthopaedic Hospital, Los Angeles; Huntington Memorial Hospital, Pasadena; and White Memorial Hospital, Los Angeles. He has written numerous articles for publication, particularly on scoliosis. He just returned from South America, where he was invited to give a talk at the Convention of the Brazilian College of Surgeons on Scoliosis.

1957 ANNUAL MEETING

INTRODUCING Doctor Dwight H. Murray of Napa, California, President of the American Medical Association.

Doctor Murray received his Doctor of Medicine degree at the Indiana University Medical School in 1917 and did postgraduate work at the University of Pennsylvania and the U. S. Naval Medical School. In 1922, following his discharge from the Navy where he served five years in the Medical Corps, he located in Napa where he has since carried on as a general practitioner, specializing in internal medicine. He is chief of the medical staff at Parks Victory Memorial Hospital in Napa.

He was president of his county medical association, then a delegate to the California Medical Association. He was named Chairman of that association's Committee on Public Policy and Legislation in 1940. In 1944 and 1945, he was a delegate from CMA to the American Medical Association House of Delegates. Soon afterward his extensive knowledge and cogent abilities in the field of politics as they affected the practice of medicine were given broader recognition in his election to membership on the AMA Board of Trustees in 1945. He became

Vice-Chairman of the Board in June 1950 and Chairman in June, 1951. He also was Chairman of the Board's Committee on Legislation from January, 1950 to December 1951.

Doctor Murray — "Murph" to his many friends — has been aptly called "a most persuasive listener." Slow and deliberate of speech, he impresses even opponents with the calm of his sureness. Patients and neighbors who know him in his own community as a physician and friend agree with his own description of himself: "family style doctor."

The President, a farm-born Hoosier, was born in 1888. Married in 1921 to Miss Genevieve Collins, he is the father of two children, a daughter, and a son who is at present assistant resident on the surgical service of the University of California Hospital. He has five grandchildren.

The Arizona Medical Association is privileged indeed to anticipate participation in its 66th Annual Meeting program of so distinguished a personage and is looking forward to greeting Doctor Murray and his charming wife.

1957 ANNUAL MEETING

INTRODUCING Doctor Joseph H. Holmes, Professor and Head of Laboratory Medicine and Clinical Pathology, University of Colorado School of Medicine.

Doctor Holmes was born in Fremont, Ohio in 1909. He received his Bachelor of Arts degree from Amherst College, and was granted his doctor of medicine degree by Western Reserve University School of Medicine in 1934. He also holds a Doctor of Medical Science degree from Columbia University, which he received in 1941. His internship was served at Emory University Hospital, Atlanta, from 1934 to 1935. From 1935 to 1937 he served a residency in Medicine at University Hospital, Baltimore under Doctor Pincoffs and had a fellowship at Columbia University in Medical Sciences from 1938 to 1939. He was an instructor and subsequent Assistant Professor of Physiology from 1938 to 1947 with two years out for service in the Army. In 1947 he became associated with the University of Colorado School of Medicine as Associate Professor of Medicine and served in that capacity until 1951, when he became Professor of Medicine. He has been Head of the Division of Laboratory Medicine and Clinical

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cal Pathology from 1953. He was certified by the American Board of Internal Medicine in 1945 and the American Board of Pathology in Clinical Pathology in 1955.

Doctor Holmes' main research interests have been in the fields of fluid and electrolyte metabolism and renal diseases. He is a member of many medical organizations and societies.

31st ANNUAL CONGRESS OF ANESTHETISTS

THE 31st Annual Meeting of the International Anesthesia Research Society will be held April 1-4 at the Westward Ho in Phoenix. Among local people who will be serving as Moderators or Discussants are: Preston Brown, Dan Cloud, Paul Case, Allen Carter and Ernie Watts, all physicians, and Ed (Bud) Jacobson, our legal adviser.

MEETING—AMERICAN ACADEMY OF GENERAL PRACTICE

NINTH ANNUAL Scientific Assembly, March 25-28 in St. Louis' Kiel Auditorium.

More than 25 prominent physician — authorities will appear on the four-day scientific program. In addition, the more than 5,000 family doctors expected to attend will have opportunities to visit 73 scientific and 260 technical exhibits. The Academy, founded in 1947 and headquartered in Kansas City, Mo., has more than 21,000 family doctor members and is the nation's second largest medical association.

The Assembly is a vital part of the Academy's postgraduate study program. Of the more than 100 national medical groups the Academy is the only one that requires continuing postgraduate study as a membership requirement. Every three years, each member must complete 150 hours of accredited postgraduate work.

MEETING NOTICE

9th ANNUAL MEETING

SOUTHWESTERN SURGICAL CONGRESS

APRIL 15th to 17th, 1957

HOTEL BROADVIEW, WICHITA, KANSAS

Jet-Atomic Flight Problems Highlight Aero Medical Ass'n. 1957 Meeting

MEDICINE in the jet-atomic age of flight will be the central theme of the 28th annual meeting

of the Aero Medical Association at the Shirley Savoy Hotel in Denver, May 6-8, 1957.

The scientific program will include reports on emergency escape from high performance aircraft, new developments in airline passenger comfort and safety, and current research in manned space satellites.

SECOND INTER-AMERICAN MEDICAL CONVENTION

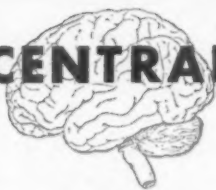
THE SECOND Inter-American Medical Convention will convene at the Hotel El Panama, Panama City, Republic of Panama, April 3, 4 and 5th, 1957, under the sponsorship of the Medical Society of Isthmian Canal Zone, a chapter of the American Medical Association since 1906. Colonel Charles O. Bruce, MC, USA, Chief Health Officer of the Panama Canal Company and President of the Medical Society, will act as keynote speaker at the invocation ceremonies, which will include addresses by the President of the Republic of Panama and by the Governor of the Panama Canal Zone.

Registration will take place at the Hotel El Panama at 9:00 A.M. April 2nd, the registration fee being \$5.00. The program will be wide in scope, and on the order of a state medical convention in the United States. Speakers will be from North and South America, and all papers will be translated into both English and Spanish. For further information write to Dr. William T. Bailey, Chairman of the Convention Executive Committee. Box O, Ancon, C. Z.

The faculty will include Dr. William F. Riehoff Jr., Dr. Hawley H. Seiler, Dr. Chester W. Emmons, Dr. Irving J. Selikoff, Dr. R. B. Turnbull, Colonel Joseph R. Schaeffer, MC, USA, Colonel James E. Graham, MC, USA, Lieutenant Colonel Robert Pillsbury, MC, USA, Dr. William A. Sodeman, Dr. Carl Johnson, Colonel Victor Hirshman, MC, USA, Dr. Joseph W. Kelso, Dr. J. A. Del Regato, Dr. Edward Shambrom, Dr. Frank Stelling, Dr. Meredith F. Campbell, and Dr. Harold W. Brown.

STANFORD POSTGRADUATE CONFERENCE IN SURGERY

STANFORD University School of Medicine will present a Postgraduate Conference in Surgery from March 18 through March 22, 1957. Registration is unlimited and will be open to Doctors with an M.D. Degree.

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Patients with common surgical problems will be presented. The surgical anatomy of the region will be demonstrated while the patient is taken to surgery. After the anatomical demonstration the operation will be broadcast in black and white television to the audience. The audience may question the surgeon through the monitor and director of the course, Dr. Roy B. Cohn, Associate Professor of Surgery.

Programs and further information may be obtained from the Office of the Dean, Stanford University School of Medicine, 2398 Sacramento Street, San Francisco 15, California.

BAHAMAS MEDICAL CONFERENCE

AT THE last monthly meeting of the Bahamas Branch of the British Medical Association in Nassau on January 3rd, the holding of another Bahamas Conference during the week after Easter, April 23rd to 30th, 1957, was approved.

This next Conference will be held at the British Colonial Hotel and the Princess Margaret Hospital in Nassau. On weekdays, lectures will be given from 9:30 to 10:00 a.m. and 5:30 to 7:00 p.m. There will also be two evening lectures and two meetings at the hospital. As last De-

cember, there will also be two evening social gatherings.

The British Colonial Hotel has offered special rates for the participants of this Conference and their wives: Modified American Plan. Two persons in one room, \$30.00 for room, breakfast and dinner per day, for two; One person in one room, \$20.00 for room, breakfast and dinner, per day, for one.

Hotel reservations should be made as early as possible by writing (airmail ten cents postage from the United States or Canada) DIRECTLY to Mr. Robert K. Holiday, Reservations Manager, British Colonial Hotel, Nassau, Bahamas, and by sending at the same time the registration fee of \$75.00.

Thirtieth Annual SPRING CONGRESS

in

.. Ophthalmology - Otology - Rhinology ..
.. Laryngoscopy - Facio-maxillary Surgery ..
.. Bronchoscopy and Esophagoscopy ..

Gill Memorial Eye, Ear and

Throat Hospital

April 1st to 6th, 1957

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STAFF

Clifton H. Briggs, M.D., F.A.C.S.

Ethel Fanson, M.D., F.A.C.P.

Douglas R. Dodge, M.D.

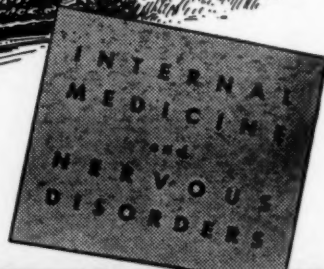
Herbert A. Duncan, M.D.

Kenneth P. Nash, M.D.

Stephen Smith III, M.D.

Harriet Hull Smith, M.D.

John W. Little, M.D.



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Woman's AUXILIARY

27th ANNUAL CONVENTION YUMA, ARIZONA

WE ARE making special plans for the 27th Annual Convention of the Woman's Auxiliary to the Arizona Medical Association to be held in Yuma April 10-13, and hope you are planning to attend.

We shall be privileged to have our National President, Mrs. Robert Flanders of Manchester, New Hampshire in attendance and I hope you will have the pleasure of meeting her and hearing her talk to the auxiliary at that time.

The following tentative program has been announced by Mrs. John Stanley of Yuma, Convention Chairman:

Wednesday, April 10 10 A.M. to 4 P.M.
Registration, Star Dust Lobby.

10:00 A.M. — Student Nurse Loan Fund Committee meeting and Nominating Committee meeting.

12:30 P.M. — Pre-Convention Board meeting and luncheon.

3:00 P.M. — School of instruction for incoming officers.

Thursday, April 11 — 9:30 A.M. — General Business Session of Auxiliary, Flamingo Dining Room.

12:30 P. M. — Luncheon at Yuma Country Club, honoring Mrs. Robert Flanders.

2:00 P. M. — Ladies' Golf Tournament.

Friday, April 12 — 19:30 A.M. — All Western Brunch, Yuma Country Club.

2:00 P. M. Ladies' Golf Tournament climaxed by the dinner dance in the evening.

So bring your squaw dress and come to Convention! Yuma County Woman's Auxiliary President, Mrs. Abe Podolsky, and the Yuma County members will be hosts for the guests from other counties.

As your President, I cordially invite and urge you to come to the State Convention "On The Border."

Mrs. Oscar W. Thoeny, President

TODAY'S HEALTH

FOR THE second time in as many years, Today's Health Magazine will go around the world on \$40.00. I feel that our progress is worthy of mention.

In 1954 when Arizona was awarded first prize in the magazine national sales competition, it was the dream of Mrs. James Soderstrom of Whipple to spread good medical tidings as well as public relations.

Through names of missionaries suggested by county auxiliaries and other groups, subscriptions were sent to far away places. The response was heart warming.

In 1955 the county societies had the pleasure of sending their own subscriptions to their special friends. One of the other states having won the prize had the opportunity to carry out their own plan to further Today's Health.

But again in 1956 we won first place and so will continue the good work started by Mrs. Soderstrom and send our health message to distant lands.

One response closer to me than perhaps others is from the Leper Colony in the Philippines.

My local Campfire group have been sending Today's Health to the group of thirty-six Campfire girls in the colony. From their leader comes the following letter.

"In the name of all my Campfire girls I thank you for the subscriptions of the Today's Health magazine, which gives many lessons pertaining to our health. Because of this magazine, many of my ignorant girls are becoming acquainted of themselves, and they learn much of their health habits.

"I thank you from the bottom of my heart that you remember us always."

It is difficult for us living so closely to medicine to imagine what such a magazine as Today's Health can and does mean to people in remote places.

But just as interesting to me is the response of our own people who have been contacted by our county chairman and are now taking the Today's Health magazine. I know of no one who is not delighted and grateful to have

authentic medical information in layman's language. All of this is very gratifying to the group working closely with the magazine.

May I mention here that Yuma County having won \$25.00 as second place in national sales in 1956, will use the money in some way to further the Today's Health cause.

As a suggestion to all of you who may read this, remember a subscription to Today's Health is always well received.

Our goal will be accomplished if our magazine contributions have spread a little understanding, good will and good health to far away places.

Mrs. William A. Phillips
Chairman, Today's Health

TODAY'S HEALTH

It would seem that the members of our society are just as resistant to the magazine Today's Health as they used to be toward Hygeia. In that day it was said this opposition was directed more against the editor, M. F., than any other factor, but he is long gone, the name, format and contents have been changed, and still there is a profound lack of interest in this fine propaganda medium.

It is agreed that we physicians have not been able to get our message across to the general public and their representatives in the federal and state legislatures. Well, maybe all do not agree with this statement, but the results would indicate that it is 99 44/100% true. No longer can our officers and agents walk into a legislative committee and get the laws and actions that we request. Some yes, but many, no.

The individual physician is still well liked and respected by his patients, but physicians as a group are not liked by the man in the street, the voter. This has been confirmed by local and national polls too many times to be denied. And we are doing so little about it.

There are many reasons for this and complacency and lethargy are not the most important ones. Time is a factor and strange as it may seem, there is a lack of knowledge as to the basic issues. Some physicians believe their job is just to practice medicine and take care of the sick. Some of these have gone so far as to state that they do not care too much about the economic and political atmosphere under which

they have to work as long as they can work. The latter may have no interest in any kind of propaganda medium, but most of the rest would if they thought there was something that would be effective.

Why is it that Today's Health has never been given the consideration it deserves as this agent? It is written for the layman. It not only explains diseases and treatment in easily understood terms, but there is always something in every issue about the free and independent practice of medicine and its advantages to the general public and the health of the nation.

Some physicians have not wanted the magazine in their reception rooms because sometimes the opinions of the author disagree with his opinions and this leads to some patient-physician conflicts. Could be this is a valid consideration.

But let's think in terms of general public education. Where may we do the most good? One thinks at once of the youngsters of the nation, the future voters. How many have ever thought in terms of our schools? Teachers are very anxious to get the magazine because it is so valuable in teaching hygiene, public health and preventive medicine.

It would cost so little for each physician to buy one subscription for a school library, public, parochial, grade or high. Maybe two or three for the latter. If this were done, we would be getting our official health message across to all the kids who are going to grow up and have their own ideas, concepts and prejudices the rest of their lives. They are going to hear lots of adverse propaganda, be exposed to lots of reading matter that blasts us and engage in lots of talk about health and doctors.

If they know the answers, they could be a big help. If they don't, they are apt to believe all kinds of wild rumors and untruths.

How about it? Why not spend a couple of bucks to win some future friends?

G. Wilse Robinson, Jr.

CLASSICS IN ARTERIAL HYPERTENSION by Arthur Ruskin, M.D. 358 pages. (1956) Thomas. \$9.50.

Searching through the old and new literature of many countries, the writer has translated and arranged chronologically the classical essays on hypertension, heretofore inaccessible. This will be an exciting addition to the libraries of historians and readers.

Stacey's Medical Books, San Francisco

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Thiamine mononitrate	1.0 mg.
Riboflavin	1.0 mg.
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